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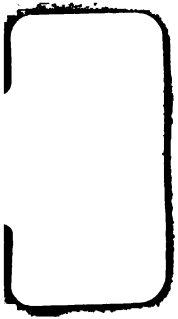

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MENTAL PHILOSOPHY:

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INTELLECT, SENSIBILITIES, AND WILL.

BY

JOSEPH HAVEN, D. D., L. L. D.,

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PREFACE

If any apology were necessary for adding yet another to the numerous works on Mental Philosophy which have recently appeared, the circumstances that led to the preparation of the present volume may, perhaps, constitute that apology.

When called, several years since, to the chair of Mental and Moral Philosophy, in this Institution, the text-books, then in use, seemed to me not well adapted to the wants of College students. Nor was it easy to make a change for the better. Of the works in this department, then generally in use in our Colleges, some presumed on a more extensive acquaintance with the science than most young men at this stage of education are likely to possess; others, again, erring on the opposite extreme, were deficient in thorough and scientific treatment; while most, if not all, were, at the best, incomplete, presenting but

a partial survey of the entire field. In none of them was the science of mind presented in its completeness and symmetry, in a manner at once simple, yet scientific; in none of them, moreover, was it brought down to the present time. Something more complete, more simple, more thorough, seemed desirable.

Every year of subsequent experience as a teacher has but confirmed this impression, and made the want of a book better adapted to the purposes of instruction, in our American Colleges, more deeply felt. The works on mental science, which have recently appeared in this country, while they are certainly a valuable contribution to the department of philosophy, seem to meet this deficiency in part, but *only* in part. They traverse usually but a portion of the ground which Psychology legitimately occupies, confining their attention, for the most part, to the *Intellectual* Faculties, to the exclusion of the *Sensibilities*, and the *Will*.

Feeling deeply the want which has been spoken of, it seemed to me, early in my course, that something might be done toward remedying the deficiency, by preparing with care, and delivering to the classes, lectures upon the topics presented in the books, as they passed along. This course was adopted — a method devolving much labor upon the instructor, but rewarding him by the increased interest and more

rapid progress of the pupils. Little by little the present work thus grew up, as the result of my studies, in connection with my classes, and of my experience in the daily routine of the recitation and lecture room. Gradually the lectures, thus prepared, came to take the place more and more of a text-book, until there seemed to be no longer any reason why they should not be put into the hands of the student as such.

It is much easier to decide what a work on mental science ought to be, than to produce such a work. It should be comprehensive and complete, treating of all that properly pertains to Psychology, giving to every part its due proportion and development. It should treat the various topics presented, in a thorough and scientific manner. It should be conversant with the literature of the department, placing the student in possession, not only of the true doctrines, but, to some extent also, of the *history* of those doctrines, showing him what has been held and taught by others upon the points in question. In style it should be clear, perspicuous, concise, yet not so barren of ornament as to be destitute of interest to the reader.

At these qualities the writer has aimed in the present treatise; with what success, others must determine.

All science, in proportion as it is complete and true, becomes simple. In proportion as this result is attained, the labor bestowed upon it disappears from view, and the writer seems, perhaps, to others, to have said but a very plain and common thing. This is peculiarly the case with mental science. The difficulty of discussing with clearness and simplicity, and, at the same time, in a complete and thorough manner, the difficult problems of Psychology, will be understood only by those who make the attempt.

J. H.

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INTRODUCTION.

CHAPTER I.

ON THE NATURE AND IMPORTANCE OF MENTAL SCIENCE.

§ 1.—Nature of the Science.

Mental Philosophy, what.—What is Mental Philosophy, as distinguished from other branches of science?

Philosophy, in the wide sense usually given it, denotes the investigation and explanation of the causes of things; it seeks to discover, and scientifically to state, the general laws both of matter and mind; its object is to ascertain facts, and their relation to each other. Mental Philosophy has for its object to ascertain the facts and laws of mental operation.

Metaphysics, what.—Of the two grand departments of human knowledge—the science of matter and the science of mind—the former, comprising whatever relates to material phenomena, the science of nature, is known under the general name of *Physics;* the latter, the science of mind, is often designated by the corresponding term, neither very correct nor very fortunate, *Metaphysics.* This term is often used to include whatever does not properly fall under the class of Physics. In its strict sense, it does not include so much, but denotes properly the science of abstract truth; the science of being, in itself considered—apart from its

particular accidents and properties—that which we now call Ontology. The term is commonly ascribed to Aristotle, but incorrectly. It originated with his followers. Several treatises of his relating to natural science having been collected and published, under the title τα φυσικα, other treatises on philosophical subjects were afterward arranged under the title τα μετα φυσικα, indicating their relation to the former, as proper to be read after the perusal of those Hence the term came into use in the general sense, already spoken of, to denote whatever is not included under physics although originally employed with a much more limited meaning.

Mental Philosophy not properly Metaphysics.—Neither in its wider nor in its stricter sense does this term properly designate the science of mind. Mental Philosophy neither embraces every thing not included under physics, nor is it the science of abstract being. As one of the intellectual, in distinction from the physical sciences, it holds a place along with Logic—the science of the laws of human thought and reasoning; Ethics—the science of morals; Politics—the science of human organization and government; to which should be added Ontology—the science of pure being; all which are properly embraced under the term Metaphysics in its wider and popular sense. To designate the science of mind in distinction from these other sciences, some more definite term is required. The word *Psychology* is now coming into use as such a term.

Mental Philosophy a Natural Science.—The science of mind, indeed, deserves in one aspect to be ranked among the *natural* sciences. It is a science resting on experience observation, and induction—a science of facts, phenomena and laws which regulate the same That which is specifically its object of investigation—the human mind—is strictly a part, and most important part of *nature*, unless we exclude man himself from the world to which he belongs, and of which he is lord.

Possibility of such a Science.—The possibility of the science of the human mind has been denied by some; but without good reason. If we can observe and classify the phenomena of nature, in her varied forms, animate and inanimate, and ascertain in this way the laws to which she is subject; if it is possible thus to construct a science of plants, of animals, of the elements that compose the substance of the earth, of the strata that lie arranged beneath its surface, of the forces and agencies that at any time, recent or remote, have been at work to produce the changes which have taken place upon and within our globe—nay, more, if leaving our own planet we may, by careful observation of the heavenly bodies, learn their places, movements, distances, estimate their magnitude and density, measure their speed, and thus construct a science of the stars, surely the phenomena of our own minds, the data of our own consciousness, must be at least equally within our reach, and equally capable of observation, classification, and scientific statement. If we can observe the habits of animals and plants, we can observe also the habits of men, and the phenomena of human thought and passion. If the careful induction of general truths and principles from observed facts form the basis and method of true science in the one case, so in the other.

Science of Matter and of Mind analogous.—The science of matter, and the science of mind agree perfectly in this, that all we know of either is simply the phenomena which they exhibit. We know not matter as it is in itself, but only as it affects our senses. We perceive certain qualities or properties of it, and these we embody in our definition, and beyond these we say nothing, because we know nothing Equally relative is our knowledge of mind. What it is in itself we know not, but only its phenomena as presented to our observation and consciousness. It thinks and feels, it perceives, remembers, reasons, it loves, hates, desires, determines; these exercises are matter of experience and

observation; they constitute our knowledge and our definition of mind, and beyond we cannot go.

Modes and Sources of Information the same in both. — This being the case, it is evident that both our sources of information, and our mode of investigation, must be essentially the same in the two departments of science. In either case our knowledge must be limited to phenomena merely, and these must be learned by observation and experience. A careful induction of particulars will place us in possession of general principles, or laws, and these, correctly ascertained and stated, will constitute our science, whether of matter or mind.

They differ in one Respect. — In one respect, indeed, our means of information with regard to the two branches of science differ. While both matter and mind can be known only by the observation of the phenomena which they present, in mental science the field of such observation lies in great part within ourselves — the phenomena are those of our own present or former consciousness — the mind is at once both the observer and the object observed. This circumstance, which at first seems to present a difficulty, is in reality a great advantage which this science possesses over all others.

Apparent Difficulty. — The difficulty which it seems to present is this: How can the eye perceive itself? How can the mind, as employed, for example, in remembering, or judging, or willing, inspect its own operations, since the moment its attention is turned to itself it is no longer engaged in that operation which it seeks to inspect — is no longer remembering, or judging, or willing, but is employed only in self-observation? We admit that the mind, in the very instant of its exercising any given faculty, cannot make itself, as thus engaged, the object of attention. But the operations of the mind, as given in consciousness, at any moment, may be retained or replaced by memory the next moment, and as thus replaced and attested, may stand be

fore us the proper objects of our investigation, so long as we please. This puts it in the power of the mind to observe and to know itself.

Real Advantage. — The advantage accruing from the circumstance that the phenomena to be observed are those of our own present or former consciousness, is this: that those phenomena are fully within our reach, and also are capable of being known with greater certainty. In physical science the facts may be scattered over the globe, and over centuries of time, not personally accessible to any one observer in their completeness, and yet that completeness of observation may be essential to correct science. In psychology, the observer has within himself the essential elements of the science which he explores; the data which he seeks, are the data of his own consciousness; the science which he constructs is the science of himself.

Comparative Value of this kind of Knowledge. — The knowledge thus given in conscious experience is more correct and reliable than any other. It has this peculiarity that it cannot be disputed. I may be mistaken in regard to the properties of a piece of matter which I hold in my hand, and which seems to me to be square or round, of such or such a color, and of such or such figure, size, and density; but I cannot be mistaken as to the fact, that it *seems* to me to be of such color, figure, etc. The former are results of perception and judgment; the latter is an immediate datum of consciousness, and cannot be called in question. To doubt our own consciousness is to call in question our very doubt, since the only evidence of our doubting is the consciousness that we doubt. As to the phenomena of the external world — the things that are passing without — I may be mistaken; as to what is passing in my own mind — the thoughts, feelings, volitions of my own conscious self — there is no room for doubt or mistake.

Not limited to Consciousness. — I do not mean, by what has been said, to imply that in our own observation of

mental phenomena we are limited to the experience of our own minds, but only that this is the principal source of our information. The mental operations of others, so far as we have access to their minds, are also legitimate data. These we may observe for ourselves in the daily intercourse of life, may notice how, under given circumstances, men will think, feel, and act, and the knowledge thus acquired will constitute a valuable addition to our self-knowledge. We may receive also, in this science, as in any other, the testimony of others as to their own mental states and operations. In so far as psychology relies upon these sources, it stands on a footing with other sciences.

§ II. — Importance of Mental Science.

Comparative Neglect. — That the science of the mind has not hitherto held that high place in the public regard and estimation, at least in our own country, to which it is justly entitled, as compared with other branches of knowledge, can hardly be denied. The cause of this comparative neglect is to be found partly in the nature of the science itself, partly in the exclusively practical tendencies of the age.

The first Cause considered. — The *nature of the science* is such that its benefits are not immediately apparent. The dullest mind can perceive some use in chemistry, or botany, or natural philosophy. They are of service in the analysis of soils, the rotation of crops, the comprehension of the laws of mechanical and chemical forces. But mental science has no such application, no such practical results patent and obvious to the careless eye. Its dwelling-place and sphere of action lie removed somewhat from the observations of men. It has no splendid cabinets or museums to throw open to the gaze of the multitude. It cannot arrange in magnificent collection all the varieties of mental action, all the complications of thought and feeling as yet observed, nor illustrate by curious instruments, and nice experiments,

the wonderful laws of association, the subtle changes and swift flashes of wit and fancy, and quick strong emotion, the impulses of desire, the curious play of volition, the unexplained mystery of thought, the lights and shadows that come and go upon the field of consciousness. For these curious and wonderful phenomena of the inner life there are no philosophic instruments or experiments, no charts or diagrams. Nor are there yet brilliant discoveries to be made, nor splendid rewards to be gained by the votaries of this science. "Four or five new metals," says Sydney Smith, "have been discovered within as many years, of the existence of which no human being could have had any suspicion; but no man that I know of pretends to discover four or five new passions."

The second Cause. — But the chief obstacle, as I suppose, to the more general cultivation of mental science is to be found in the exclusively practical tendencies of the age. We are a people given more to action than to thought, to enterprise than to speculation. This is perhaps inseparable from the condition of a new state. An age of action is seldom an age of reflection. External life demands the energies of a new people. The elements are to be subdued, mountains levelled, graded, tunnelled, roads constructed, cities built, and many useful, necessary works to be wrought with toil and cost, before that period comes of golden affluence, and leisure, and genial taste, and elegant culture, that can at once appreciate and reward the higher efforts of philosophic investigation.

Relation to other Sciences. — The *importance* of mental science appears from its relation to other sciences. We find in nature a gradually ascending series. As we pass from the observation and study of the mineral to the forms of vegetable life, from the plant to the insect — and thence to the animal, and from the animal, in his various orders and classes, to man, the highest type of animated existence on the earth, we are conscious of a progression in the rank and

dignity of that which we contemplate. But it is only when we turn our attention from all these to the intelligence that dwells within the man, and makes him master and lord of this lower world, that we stand upon the summit of elevation and overlook the wide field of previous inquiry Toward this all other sciences lead, as paths along the mountain side, starting from different points, and running in different directions, converge toward a common terminus at the summit. As the mineral, the plant, the insect, the animal, in all their curious and wonderful organizations, are necessarily inferior to man, so is the science of them, however important and useful, subordinate to the science of man himself; and as the human body, curious and wonderful in its organism and its laws, is nevertheless inferior in dignity and worth to the spirit that dwells within, and is the true lord of this fair castle and this wide and beautiful domain, so is the science of the body, its mechanism, its chemistry, its anatomy, its laws, inferior to the science of the mind, the divinity within.

Other Sciences Creations of the Mind. — Many of the sciences justly regarded as the most noble, are themselves the creations of the mind. Such, for example, is the science of number and quantity — a science leading to the most sublime results, as in the calculations of the astronomer, yet a pure product of the human intellect. Indeed what is all science but the work of mind? The creations of art are wonderful, but the mind that can conceive and execute those creations is still more to be admired. Language is wonderful, but chiefly as a production and expression of mind. The richness, the affluence, the eloquence, the exactness, the beauty, for example, of the Greek tongue, of what are these the qualities, and where did they dwell — in the Greek language, or in the Greek mind? Which is really the more noble and wonderful then, the language itself, or the mind that called into being such a language, and em

ployed it as an instrument of expression; and of which is the science most noble and worthy of regard?

We admire the genius of a Kepler and a Copernicus, we sympathize with their enthusiasm as they observe the movements and develop the laws of the heavenly bodies; we look through the telescope, not without a feeling of awe, as it seems to lift us up, and bear us away into the unknown and the infinite, revealing to us what it would almost seem had never been intended for the human eye to see; but one thing is even more wonderful than the telescope — that is the mind that contrived it. One thing is more awe-inspiring than the stars, and that is the mind that discovers their hidden laws, and unlocks their complicated movements; and when we would observe the most curious and wonderful thing of all, we must leave the tubes and the tables, the calculations and the diagrams with which the man works, and study the man himself, the workman.

Relation of this Science to the practical Arts and Sciences. — But aside from the view now presented, the connection of mental science with other and practical arts and sciences is much more intimate than is usually supposed Take for example the very noblest of all sciences — theology; we find it, in an important sense, based upon and receiving its shape and character from the views which we entertain, and the philosophy which we adopt of the human mind. Our philosophy underlies our theology, even as the solid strata that lie unseen beneath the surface give shape and contour and direction to the lofty mountain range.

Psychology as related to Theology. — Not to speak of the very idea which we form of the divine Being, borrowed as it must be, in a sense, from our previous conception of the human mind, and our own spiritual existence, not to speak of the arguments by which we seek to establish the existence of the divine Being, involving as they do some of the nicest and most important of the laws of human thought, what problems, we may ask, go deeper into the groundwork of

any theological system than those pertaining to human ability, and the freedom of the will — the government of the affections and desires — the power of a man over himself, to be other and better than he is, and to do what God requires. But these are questions purely psychological. You cannot stir a step in the application of theology to practical life, till you have settled in some way these questions, and that view, whatever it be, crude or profound, intelligible or absurd, is, for the time, your science, your philosophy of the mind.

Psychology as related to the healing Art. — Scarcely less intimate is the connection of psychology with the science of life. The physician finds in the practice of his profession, that in order to success, the laws of the human mind must constitute an important part of his study — how to avoid, and how to touch, the secret springs of human action. A word rightly spoken is often better than a medicine. In order to comprehend the nature of disease he must understand the effect on the bodily organization of the due, and also of the undue, exertion of each of the mental faculties; in fine, the whole relation of the mind to the bodily functions, and its influence over them — a field of inquiry as yet but imperfectly understood, if indeed adequately appreciated by the medical profession.

As related to Oratory. — To the public speaker, whether at the bar, in the public assembly, in the halls of legislation, or in the pulpit, it need hardly be said that a knowledge of this science, and the ability to make practical use of it, is indispensable. Success in oratory depends, doubtless, in a measure, upon other things; but he who best understands the laws and operations of the human mind, how to touch the sensibilities, how to awaken the passions, how to excite the fears and the hopes, how to rouse the resentment of his hearers, how to soothe the troubled spirits, and allay the excitement of feeling, and disarm prejudice, and call into play the sober reason and calm judgment of man, will

best be able to accomplish his purpose. He will be able to turn to his own account the circumstances of the occasion, and like a skilful organist, touch with ease, yet with precision and effect, what key he will. No man can do this who does not well understand the instrument.

As related to the Art of Education. — Especially is this science of use to the *teacher* in the knowledge which it gives him of the mind of his pupil, and the skill in dealing with that mind. The mind of the pupil is to him the instrument on which he is required to play — a curious instrument of many and strange keys and stops — capable of being touched to wonderful harmony, and to fearful discord; — and to handle this instrument well is no ordinary acquirement. What shall we say of the man who knows nothing of the instrument, but only the music to be performed, nothing of the mind to be taught, but only the knowledge to be communicated? To know the mind that is to be taught, how to stimulate, how to control, how to encourage, how to restrain, how to guide and direct its every movement and impulse, is not this the very first and chief thing to be known?

Connection of this Science with our own personal Interests. — The importance of mental science is evident not only from its relation to other sciences, but from the relation it sustains to man and his higher interests. Some sciences interest us as abstractions — merely speculative systems of truth; others as realities, but of such a nature, and so remote from the personal interests and wants of the race to which we belong, that they make little appeal to our sensibilities. Thus it is with mathematical and astronomical truth. The heavenly bodies, whose movements we observe, hold on their swift silent way, in the calmness of their own eternity, regardless of man and his destiny, even as they rolled ages ago, and as they will ages hence. What have we to do with them or they with us? We watch them as they hold their course through the deep firmament, as children, standing on the sea-side, watch the distant snowy

sail that glides silently along the horizon, afar off, beautiful, unknown. So sail those swift ships of the firmament, and only he who made them knows their history.

Psychology in contrast with other Sciences in this respect — But when we come to the study of ourselves, and the laws of our own intelligence, our inquiries assume a practical importance which attaches to no other departments of truth. It is no longer the sail dimly visible on the far horizon, but our own conscious being that is the object of thought. The question no longer is, Whence comes that swift ship, and whither goes it, but, What am I, and whither going; what my history, and my destiny? This mysterious soul which animates me, and is the presiding divinity over all my actions, what is it, with all its wondrous faculties — sense, imagination, reason, will — those powers of my being? What is that change which passes upon me, which men call sleep, and that more mysterious and fearful change that must soon pass upon me, and that men call death? How is it that events of former years come back to mind, with all the freshness and reality of passing scenes? What is that principle of my nature that ever assumes to itself the right of command, saying to all my inclinations and passions, thou shalt, and thou shalt not, and when I disobey that mandate, filling my whole soul with misery, my whole future existence with remorse? And what and whence that word *ought*, that has so much to do with me and my pursuits: ought what, and why ought, and to whom? — Am I free, or am I subject to inevitable necessity; if free, then how are all my actions controlled, and predetermined by a divine Providence? If not free, then how am I responsible? Who shall solve this problem; who shall read me this strange inexplicable riddle of human life? Such are the questions and themes which mental philosophy discusses, and we perceive at a glance their intimate connection with the highest interests and personal wants of man as an individual.

Connection of this Science with mental Discipline. — The

importance of mental science may be further apparent in its effect on the culture and discipline of the mind. It is the peculiar effect of this science to sharpen and quicken the mental powers, to teach precision and exactness of thought and expression, to train the mind to habits of close attention and concentration of thought, to lead it to inquire into the causes and relations of things; in a word, to render it familiar with the great art of distinguishing things that differ. It would hardly be possible to name another branch of study that tends so directly to produce these results in the cultivation of the mind.

CHAPTER II.

ANALYSIS AND CLASSIFICATION OF THE MENTAL POWERS.

Importance of such a preliminary Investigation. — It is of the highest importance, as we approach a science like the one before us, to obtain, if possible, at the outset, a clear and comprehensive view of the field about to be explored. It is desirable that the traveller, before entering a new country, should learn something respecting its extent, its political and geographical divisions, its manners, its laws, its history. Even more necessary is it, in entering upon a new science, to know its boundaries and divisions, to obtain a clear idea, at the very commencement of our inquiries, of the number, nature, extent, and arrangement of the subject we are about to investigate. Otherwise we shall be liable to confusion and error, shall not know where, at any moment, in the wide field of investigation, we may chance to be, or what relation the topic of our immediate inquiry holds to the whole science before us; as a ship on the

ocean, without observation and reckoning, loses her latitude and longitude. We shall be liable to confound those distinctions which are of less, with those which are of more importance, and to mistake the relation which the several topics of inquiry bear to each other. Especially is this previous survey and comprehension of the subject essential in a science like this, where so much depends on the clearness and accuracy with which we distinguish differences often minute, and on the definiteness with which we mark off and lay out the several divisions of our work. A thorough analysis and classification of the various faculties of the mind is necessary, in the first place, before we enter upon the special investigation of any one of them. Such a classification must serve as our guide-book and chart in all further inquiries.

Difficulty of such an Investigation. — The importance of such a preliminary investigation is scarcely greater than its difficulty. It would be easy, indeed, to mention, almost at random, a considerable number of mental operations, with whose names we are familiar; and a little thought would enable us to enlarge the list almost indefinitely. But such a list, even though it might chance to be complete, would be neither an analysis nor a classification of these several powers. It would neither teach us their relations to each other and to the whole, nor enable us to understand the precise nature and office of each faculty. We could not be sure that we had not included under a common name operations essentially different, or assigned distinct places and offices to powers essentially the same. Much depends, moreover, on the order in which we take up the several faculties.

It is evident at a glance that to form a clear, correct, and comprehensive arrangement of the powers of the mind, is no slight undertaking. A complete understanding of the whole science of the mind is requisite. It is one of the last things which the student is prepared to undertake, yet one of the first which he requires to know. Unfortunately for

the science, perhaps no topic in the whole circle of intellectual investigation has been more generally neglected, by those who have undertaken to unfold the philosophy of the mind, than the one now under consideration.

§ I. — General Analysis.

A mental Faculty, what. — In making out any scheme of classification, the question at once arises, how are we to know what are, and what are not distinct faculties? In order to this, we must first determine what constitutes a mental faculty.

What, then, is a faculty of the mind? I understand by this term simply the mind's power of acting, of doing something, of putting forth some energy, and performing some operation. The mind has as many distinct faculties, as it has distinct powers of action, distinct functions, distinct modes and spheres of activity. As its capabilities of action and operation differ, so its faculties differ.

The Mind not complex. — Now mental activity is, strictly speaking, one and indivisible. The mind is not a complex substance, composed of parts, but single and one. Its activity may, however, be exercised in various ways, and upon widely different classes of objects; and as these modes of action vary, we may assign them different names, and treat of them in distinction from each other. So distinguished and named, they present themselves to us as so many distinct powers or faculties of the mind. But when this is done, and we make out, for purposes of science, our complete list and classification of these powers, we are not to forget that it is, after all, one and the same indivisible spiritual principle that is putting forth its activity under these diverse forms, one and the same force exerting itself — whether as thinking, feeling, or acting — whether as remembering, imagining, judging, perceiving, reasoning, loving, fearing, hating, desiring, choosing. And while we may

designate these as so many faculties of the mind, we are not to conceive of them as so many constituent parts of a complex whole, which, taken together, compose this mysterious entity called the mind, as the different limbs and organs of the physical frame compose the structure called the body. Such is not the nature of the mind, nor of its faculties.

The Question before us. — In inquiring, then, what are the faculties of the mind, we have simply to inquire what are the distinct modes of its activity, what states and operations of the mind so far resemble each other as to admit of being classed together under the same general description and name. Our work, thus understood, becomes in reality a very simple one.

The more important Distinctions to be first ascertained — What, then, are the clearly distinct modes of mental activity? And first let us endeavor to ascertain the wider and more important distinctions. We shall find that, innumerable as the forms of mental activity may at first sight appear, they are all capable of being reduced to a few general and comprehensive classes.

The first Form of mental Activity. — I sit at my table. Books are before me. I open a volume, and peruse its pages. My mind is occupied, its activity is awakened; the thoughts of the author are transferred to my mind, and engage my thoughts. Here, then, is one form of mental activity. This one thing I can do; this one power I have — the faculty of thought.

The second Form. — But not this alone: I am presently conscious of something beside simple thought. The writer, whose pages I peruse, interests me, excites me; I am amused by his wit, moved by his eloquence, affected by his pathos; I become indignant at the scenes and characters which he portrays, or, on the contrary, they command my admiration. All this by turns passes over me as the fitful shadows play upon the waters, coming and going with the changing cloud. This is not pure thought. It is thought

accompanied with another and quite distinct element, that is, *feeling*. This power also I have; — I can feel.

A third Form. — And not this alone. The process does not end here. Thought and feeling lead to action. I resolve what to do. I lay down my book, and go forth to perform some act prompted by the emotion awakened within me. This power also I have; — the faculty of voluntary action, or volition.

These three Forms comprehensive. — Here, then, are three grand divisions or forms of mental activity — thought, feeling, volition. These powers we are constantly exerting. Every moment of my intelligent existence I am exercising one or another, or all of these faculties. And, what is more, of all the forms of mental activity, there is not one which does not fall under one or another of these three divisions — thought — feeling — volition. Every possible mental operation may be reduced to one of these three things.

We have, then, these grand departments or modes of mental activity, comprehensive of all others: Intellect, or the faculty of simple thought; Sensibility, or the faculty of feeling; Will, or the faculty of voluntary action.

Under these leading powers are comprehended subordinate modes of mental activity, known as faculties of the Intellect, or of the Sensibility, or of the Will.

We have at present to do only with those of the Intellect.

§ II. — Analysis of Intellectual Powers.

Sense-perception. — Observing closely the intellectual operations of the mind, we find a large class of them relating to objects within the sphere of sense, external objects, as perceived by the senses. The mind, through the medium of sense, takes direct cognizance of these objects. This class of operations we may call Sense-perception, and the

faculty thus employed, in distinction from other leading divisions of the intellectual powers, we may call *Sense*, or the *Presentative* faculty. Its distinctive office is to *present* to the mind, through the senses, objects external, sensible, as now and here present.

The Representative Power. — But the mind not only receives impressions of external objects, as present, and acting on the organs of sense; it has also the faculty of *conceiving* of them in their *absence*, and *representing* them to itself. This faculty, as distinguished from the receptive power, or sense, we may call the *Representative* Power.

Mental Reproduction, and mental Recognition as distinguished. — This power operates in various forms. There may be the simple representation of the absent object, without reference to the act of former perception, as when I think of the Strasburg tower, without recalling any particular instance of its perception. Or there may be such recalling of the former act and instance of perception. The thought of the tower, as it presents itself to my mind, may stand connected definitely with the idea of the time, and place, and attending circumstances in which, on some occasion, I saw that object. It is then *recognized* as the object which was seen at such or such a time. The former is an instance of *mental reproduction* simply — the latter, of *mental recognition*. We have in common language but one name for the two — although the term more strictly belongs only to the latter — and that is, *Memory*.

Representation of the Ideal in distinction from the Actual. — Again, unlike either of these, there may be a conception and representation of the object, not at all as it is in reality, and as it was perceived, but varied in essential particulars, to suit our own taste and fancy — a tower not of ordinary stone, but of some rare and costly marble — not of ordinary height, but reaching to the skies, etc., etc. In the former cases we conceived only of the *actual*, now of the *ideal*. This faculty is called *Imagination*. Both are forms

of the representative power, not *presenting*, but only *representing* objects.

Conception of the Abstract.—The Discursive or Reflective Power.—In the cases thus far described we have conceived of some sensible object, considered in and by itself, capable of being represented to thought. We may, however, conceive not of an object in itself considered, but of the properties and relations of objects in the abstract. Thus we compare and class together those objects which we perceive to possess certain properties in common; as books bound in cloth, or in leather, octavos, or duodecimos. In so doing we exercise the faculty of *generalization*, which involves comparison, and also what is usually termed abstraction. Or we may reverse the process, and instead of classing together objects possessing certain elements in common, we may analyze a complex idea, or a comprehensive term, in order to derive from it whatever is specifically included in it. Thus from the general proposition, "All men are mortal," inasmuch as the term "all men" includes Socrates, I infer that Socrates is mortal. The process last named is called *reasoning*.

In either case, both in the synthetic and the analytic process now described, we are dealing not with the *concrete* but the *abstract*. The properties and relations of things, rather than things themselves, are the objects of our thoughts. Still they are the properties and relations primarily of *sensible objects*, and of these objects as *conceived*, and not as presented to sense. To distinguish this class of conceptions from those previously considered, and also from that presently to be noticed, we may designate this power of the mind as the *Discursive* or *Reflective* Power. Its results are notions of the *understanding* rather than impressions of sense, or ideas of reason.

Conceptions not furnished by Sense.—The Intuitive Power.—We have considered thus far those intellectual operations which fall within three leading departments of

mental activity; — the Presentative, Representative, and Discursive Powers. These operations all have reference directly or indirectly to *sensible* objects. The first regards them as *present;* the second represents them as *absent;* the third considers their properties and relations in the *abstract.*

But the mind has also the faculty of forming ideas and conceptions not furnished by the senses. It departs from the sphere of sense, and deals with the *super*-sensible, with those primary ideas and first principles presupposed in all knowledge of the sensible. Such are the ideas of time, space, cause, the right, the beautiful. These are suggested by the objects of sense, but not directly derived from nor given by those objects. They are *ideas* of *reason*, rather than notions of understanding. They are awakened in the mind on occasions of sensible perception, but not conveyed to the mind through the senses, as in perception, nor directly derived from the object as in the case of the representative and discursive powers. This faculty we may call the *Originative* or *Intuitive* Power, in distinction from those previously considered.

Summary of leading Divisions. — We have then four grand divisions of intellectual operations, under which the several specific faculties arrange themselves; viz., the Presentative, the Representative, the Discursive, and the Originative or Intuitive faculty. The first has to do with sensible objects, as present; the second has to do with the same class of objects as absent; the third deals with their abstract properties and relations; and the fourth has to do not with the sensible, in any form, but with the super-sensible.

I believe the faculties of the intellect, in pure thinking, may all be reduced to those forms now specified, under these four leading divisions

RESULTS OF THE PRECEDING ANALYSIS IN A TABULAR FORM:

POWERS OF THE INTELLECT.

I. PRESENTATIVE,		*Perception.*
II. REPRESENTATIVE,	1. Of the Actual,	*Memory.*
	2. Of the Ideal,	*Imagination.*
III. REFLECTIVE,	1. Synthetic,	*Generalization.*
	2. Analytic,	*Reasoning.*
IV. INTUITIVE,		*Original Conception.*

§ III. — HISTORICAL SKETCH — VARIOUS DIVISIONS OF THE MENTAL FACULTIES.

The earlier Division. — The general division of the powers of the mind, for a long time prevalent among the earlier modern philosophers, was into *two* chief departments, known under different names, but including under the one what we now term the intellect, under the other what we designate as the sensibilities and the will, which were not then, as now, distinguished from each other in the general division, but thrown into one department. Under the first of these departments, they included the thinking and reasoning powers, the strictly intellectual part of our nature; under the second, whatever brings the mind into action — the impelling and controlling power or principle — the affections, emotions, desires, volitions, etc. The names given to these two divisions varied with different writers, but the difference was chiefly in the name, the principle of division being the same. By some authors they were designated as the *contemplative* and the *active* powers, by others *cognitive* and *motive*. The latter was the nomenclature proposed by Hobbes. Others again adopted the terms understanding and will, by which to mark the two divisions; Locke, Reid, some of the French philosophers, and, in our own country, Edwards, followed this division. Stewart designates them, the one class as the *intellectual*, and the other as the *active*

and *moral* powers. Brown objects to this phraseology on the ground that the intellectual powers are no less active than the other. He divides the mental powers or states primarily into what he calls *external* and *internal* affections of the mind, comprehending under the former all those mental states which are immediately preceded by and connected with the presence of some external object; under the latter, those states which are not thus immediately preceded. The latter class he divides into intellectual states and emotions, a division corresponding essentially to those of the authors previously mentioned, the emotions of Brown comprehending essentially the powers which others had termed motive, or active and moral.

Prevalence of this Method. — This twofold division of the mental powers, under different names, as now stated, has been the one generally prevalent until a comparatively recent date. It may doubtless be traced, as Sir William Hamilton suggests, to a distinction made by Aristotle, into *cognitive* and *appetent* powers.

The more recent Method. — The threefold division of the mental faculties very early came into use among philosophical and theological writers in this country, and is now very generally adopted by the more recent European writers of note, especially in France and Germany. According to this division the various affections and emotions constitute a department by themselves, distinct from the will or the voluntary principle. There are many reasons for such a distinction; they have been well stated by Professor Upham Cousin adopts and defends the threefold division, and previously still, Kant, in Germany, had distinguished the mental powers under the leading divisions of intelligence, sensibility, and desire.

MENTAL PHILOSOPHY.

DIVISION FIRST.

THE INTELLECTUAL FACULTIES.

PRELIMINARY TOPICS.

CHAPTER I.

CONSCIOUSNESS.

General Statement. — Before proceeding to investigate the several specific faculties of the intellect, as already classified, there are certain preliminary topics to be considered, certain mental phenomena, or mental states, involved more or less fully in all mental activity, and on that account hardly to be classed as specific faculties, yet requiring distinct consideration. Such are the mental states which we denominate as *consciousness* and *attention.*

Definitions. — Consciousness is defined by Webster as the knowledge of sensations and mental operations, or of what passes in our own minds; by Wayland, as that condition of the mind in which it is cognizant of its own operations; by Cousin, as that function of the intelligence which gives us information of every thing which takes place in the interior of our minds; by Dr. Henry, translator of Cousin, as the being aware of the phenomena of the mind — of that which is present to the mind; by Professor Tappan, as the necessary knowledge which the mind has of its own operations. These general definitions substantially agree. The mind is aware of its own operations, its sensations, perceptions, emotions, choices, etc., and the state or act of being thus cognizant of its own phenomena we designate by the general term *Consciousness.*

Reasons for regarding Consciousness as not a distinct Faculty. — Is this, however, a distinct faculty of the mind? The mind, it is said, is always cognizant of its own operations: when it perceives, it is conscious of perceiving; when it reasons, it is conscious of reasoning; when it feels, it is conscious of feeling; and not to be conscious of any particular mental act, is not to perform that act. To have a sensation, and to be conscious of that sensation, it is said, are not two things, but one and the same, the difference being only in name. A perception is indivisible, cannot be analyzed into a fact, and the consciousness of the fact, for the perception is an act of knowing, and does not take place if it be not known to take place. This is the view taken by Sir William Hamilton, Professor Bowen, and others of high authority. It was maintained by Dr. Brown with much force as an objection to the doctrine of Reid, who had recognized consciousness as a distinct faculty.

Reasons for the opposite View. — On the other hand, the claims of this form of mental activity to be regarded as a faculty of the mind, distinct from and coördinate with the other mental powers, are admitted and maintained by writers of authority, among whom are Dr. Wayland and President Mahan. They maintain that the office of consciousness being to give us knowledge of our own mental states, and this function being quite distinct from that of any other mental faculty, the capacity or power of performing this function deserves to be regarded as itself a faculty of the mind. It is maintained also by Dr. Wayland that consciousness does not necessarily invariably accompany all mental action, but that there may be, and are, acts of which we are not at the time conscious.

Instances in proof of this Position. — In support of this position he refers to certain cases as instances of unconscious perception; as when, for example, a clock strikes within a few feet of us, while we are busily engaged, and we do not notice it, or now that it has struck, yet if questioned

afterward, are conscious of an impression that we have heard it; as when also while reading aloud to another person, some thought arrests our attention, and yet by a sort of mechanical process, we continue the reading, our mind, meanwhile, wholly occupied with another subject, until presently we are startled to find that we have not the remotest conception of what we have just been reading; yet we read every word correctly, and must, it would seem, have perceived every word and letter. He refers also to the case of the short-hand writer to the House of Lords in England, who, on a certain occasion, while engaged in taking the depositions of witnesses in an important case, after many hours of continued exertion and fatigue, fell, for a few moments, into a state of entire unconsciousness, yet kept on writing down, and that with perfect accuracy, the depositions of the witness. Of the last few lines, when he came to read them, he had no recollection whatever, yet they were written as legibly and accurately as the rest. From these and similar cases it is inferred that there may be mental activity of which we have at the time no consciousness.

The Evidence examined. — With regard to the cases now cited, it seems to me that they do not fully establish the point in question. For in the first place, it may be doubted whether they really involve any mental activity — whether they are properly mental acts, and not merely mechanical or automatic. It is well known that many processes which ordinarily require more or less attention may, when they have become perfectly familiar, be carried on for a time almost without thought. The senses, so far as they are required to act at all, seem in such cases to act mechanically or automatically, somewhat as a wheel when once set in motion continues for a time to revolve by its own momentum, after the propelling force is withdrawn. The mental activity exerted in such cases, if there be any, is so very slight as to escape attention, and we are unconscious of it simply be-

cause there was little or nothing to be conscious of. We have an illustration of this in the act of walking, while busily engaged in conversation with a friend, or in our own meditations. We are not conscious of any mental act preceding or directing each step and movement of the limbs, but having at the outset decided what direction to take, the mind gives itself to other matters, while the process of walking goes on by a sort of mechanical impulse, until presently something occurs to arrest our attention and direct it to the physical movement in which we are engaged. The muscular contractions tend to follow each other in a certain regular succession; a certain law of association seems to govern their movements, as is seen in the rapid motions of the pianist the flute player, the type distributor, and in many similar cases; and so long as the regular succession, and accustomed order of movement, is undisturbed, the process goes on with little or no interference of the intellectual principle. In such cases the act can hardly be said to involve mental activity.

A further Question. — But aside from this, even admitting that the acts under consideration are such as to involve mental activity, what evidence is there, it may still be asked, that there was at the moment no consciousness of that activity? That there was *subsequently* no consciousness of it, does not make it certain that there was none at the time. The subsequent consciousness of an act is neither more nor less than memory, and is not properly consciousness at all. Consciousness takes cognizance, properly speaking, only of the present, not of the past. The absence of subsequent consciousness is simply absence of memory, and this may be accounted for in other ways than by supposing a total absence of consciousness in the first instance. Whatever mental activity was really exerted by the short-hand reporter in the case referred to, he was, doubtless, conscious of exerting at the time, but it may have been so slight, and the mind so little impressed by it, in the state of physical weariness and

prostration, that it was not remembered a moment afterward. We remember not every thing that occurs, but only that to which we attend, and which makes some impression upon us.

The true Explanation. — In the other cases referred to, the explanation now given is still more evidently the true one. What is called an absence of consciousness is simply an absence of attention at the time, and consequently of memory afterward. The person who is reading aloud, in the case supposed, is mentally occupied with something else than the sentiments of the author, is not attending, in a word, to what he is reading, and hence does not, a moment after, remember what it was that he read. So of the striking of the clock. The sound fell upon the ear, the auditory nerve performed its office, the usual change, whatever it may be, was produced in the brain, but the process of hearing went no further; either no mental activity was awakened by that sound, or, if any, but the slightest, for the mind was otherwise occupied, in a word, did not attend to the summons of the messenger that waited at the portal, and hence there was no subsequent remembrance of the message, or at most a vague impression that something of the kind was heard.

On the whole, it does not appear from the cases cited, that mental activity is ever, at the moment of its exertion, unaccompanied with consciousness.

Summary of the Argument. — I hesitate then to assign consciousness a place among the faculties of the mind, as distinct from and coördinate with them, for the following reasons:

1. It seems to me to be involved in all mental acts. We cannot, as it has been already said, suppose an act of perception, for example, or of sensation, without the consciousness of that perception or sensation. Whatever the mind does, it knows that it does, and the knowing is involved in, and given along with the doing. Not to know that I see a book, or hear a sound, is in reality not to see and not to

hear it. Not to know that I have a sensation is not to have it. But what is involved in all mental action cannot be set down by itself as a specific mental act. This were much the same as to reckon the whole among the parts.

2. Consciousness, while involved in, cannot be, either psychologically or chronologically, distinguished from the mental acts which it accompanies. The act and the consciousness of the act are inseparable in time, and they are incapable of being distinguished as distinct states of mind We cannot break up the sensation or perception into a fact, and the consciousness of that fact. Logically we may distinguish them as different objects of thought and attention, but not psychologically as distinct acts of mind.

3. Consciousness is not under the control of the will, and is not therefore a faculty of the mind. It is not a power of doing something, but an inseparable concomitant of all doing. What has been termed by some writers voluntary consciousness, or *reflection*, is simply attention directed to our own mental acts.

Distinction of Consciousness and Self-Consciousness.— Others again distinguish between consciousness and self-consciousness; but all consciousness, properly so called, involves the idea of self, or the subjective element. To know that I have a sensation, is virtually to know myself as having it.

Cases of abnormal or suspended Consciousness. — In certain disordered and abnormal states of the nervous organism, the knowledge of what has transpired previously to that state seems to be lost; and then again, on passing out of that condition into the normal one, all knowledge of what took place while in the abnormal state is wanting. Instances are on record where persons have alternated in this manner from one to the other condition, carrying on, as it were, by turns, two separate and independent lines of mental activity. An instance of this nature is related by Dr. Wayland. It has been usual to speak of these as instances of mental weariness, delered

or suspended consciousness. Strictly speaking, however, it is not consciousness but memory that is in such cases disordered. It is not the knowledge of the present, but of the *past*, that is disturbed and deficient. While the abnormal state continues, the individual is conscious of what transpires in that state. When it ceases, the patient wakes as from a reverie or dream, and retains no *recollection* of any thing that took place during its continuance. It is the *memory* that fails, and not the consciousness. We are never *conscious* of the *past*.

Objects of Consciousness. — 1. Consciousness deals only with reality. We are conscious only of that which is, not of that which may be. The poet is conscious indeed of his fiction, the builder of air-castles is conscious of his reverie, but the fiction and the reverie, regarded as mental acts, are *realities*, and it is only as mental acts that they are objects of consciousness.

2. Not every thing real is an object of consciousness, but only that which is *present* and in *immediate relation* to us. The destruction of Pompeii, and the existence of an Antarctic continent are realities, but not objects of my consciousness.

3. Primarily and directly we are conscious of our own mental states and operations; of whatever passes over the field of our mental vision, our thoughts, feelings, actions, physical sensations, moral sentiments and purposes: mediately and indirectly we are conscious of whatever, through the medium of sense, comes into direct relation to us. For instance, when I put forth my hand and it strikes this table, I am conscious not only of the movement, and the effort to move, but of the sensation of resistance also, and indirectly I may be said to be conscious not of the resistance only, but of something — to wit, the table — as resisting. This something I know, as really as I know the sensation and the fact of resistance. To this immediate perception of the external world in direct relation to our physical organism, Sir W. Hamilton would extend the sphere of consciousness. Usual

ly, however, the term has been employed in a more restricted sense — to denote the knowledge of what passes within, rather than of what lies without the mind itself.

CHAPTER II.

ATTENTION.

General Character of this Power. — It has not been usual to treat of Attention as one of the distinct faculties of the mind. It is doubtless a power which the mind possesses, but like the power of conception, or more generally the power of thought and mental apprehension, it is involved in and underlies the exercise of all the specific mental faculties. Nor is it, like consciousness, confined to a distinct department of knowledge, viz., the knowledge of our own mental states. It is subsidiary to the other mental powers, rather than a faculty of original and independent knowledge. It originates nothing — teaches nothing — puts us in possession of no new truth — has no distinct field and province of its own. And yet without it other faculties would be of little avail.

Definitions. — If it were necessary to define a term so well understood, we might describe it as the power which the mind has of directing its thoughts, purposely and voluntarily, to some one object, to the exclusion of others. It is described by Dr. Wayland as a sort of voluntary consciousness, a condition of mind in which our consciousness is excited and directed by an act of the will. He speaks also of an involuntary attention, a state of mind in which our thoughts, without effort or purpose of our own, are engrossed by objects of an exciting nature. It may be questioned, perhaps, whether this is properly attention. Only in so far as attention is a voluntary act is it properly a

power of the mind, and only in so far does it differ from the simple activity of thought, or of consciousness. The latter is always involuntary, and in this it differs from attention.

Instances in Illustration. — It can hardly be necessary to illustrate by example the nature of a faculty so constantly in exercise. Every one perceives, for instance, the difference between the careless perusal of an author — the eye passing listlessly over the pages, and the mind receiving little or no impression from its statements — and the reading of the same volume with fixed and careful attention, every word observed, every sentiment weighed, and the whole mental energy directed to the subject in hand. We pass, in the streets of a crowded and busy city, many persons whom we do not stop to observe, and of whose appearance we could afterward give no account whatever. Presently, some one in the crowd attracts our notice. We observe his appearance, we watch his movements, we notice his peculiarities of dress, gait, manners, etc., and are able afterward to describe them with some degree of minuteness. In the former case we perceive, but do not attend. In the latter, we attend, in order to perceive.

Sometimes the sole Occupation. — Attention seems to be at times the sole occupation of the mind for the moment, as when we have heard some sound that attracts our notice, and are listening for its repetition. In this case the other faculties are for the time held in suspense, and we are, as we say, all attention. The posture naturally assumed in such a case is that indicated by the etymology of the word, and may have suggested its use to designate this faculty, viz. attention — ad-tendo — a *bending to*, a *stretching toward*, the object of interest.

Analysis of the mental Process in Attention. — If we closely analyze the process of our minds in the exercise of this power, we shall find, I think, that it consists chiefly in this — the arresting and detaining the thoughts, excluding thus the exercise of other forms of mental activity, in con-

sequence of which the mind is left free to direct its whole energy to the one object in view. The process may be compared to the operation of the detent in machinery, which checks the wheels that are in rapid motion, and gives opportunity for any desired change; while it may be compared, as regards the result of its action, to the helm that directs the motion of the ship, now this way, now that, as the helmsman wills.

Objects of Attention. — The objects of attention are of course as various as the objects of thought. Like consciousness, it may confine itself to our own mental states; and, unlike consciousness, it may comprehend also the entire range of objective reality. In the former case it is more commonly designated by the term reflection, in the latter, observation.

Importance of Habits of Attention. — The importance of habits of attention, of the due exercise and development of this faculty of the mind, is too obvious to require special comment. The power of controlling one's own mental activity, of directing it at will into whatever channels the occasion may demand, of excluding for this purpose all other and irrelevant ideas, and concentrating the energies of the mind on the one object of thought before it, is a power of the highest value, an attainment worth any effort, and which, in the different degrees in which it is possessed, goes far to make the difference between one mind and another in the realm of thought and intellectual greatness. While the attention is divided and the mind distracted among a variety of objects, it can apprehend nothing clearly and definitely; the rays are not brought to a focus, and the mental eye, instead of a clear and well-defined image, perceives nothing but a shadowy and confused outline. The mind while in this state acts to little purpose. It is shorn of its strength.

The power of commanding the attention and concentrating the mental energy upon a given object, is, however, r

power not easily acquired nor always possessed. The difficulty of the attainment is hardly less than its importance. It can be made only by earnest effort, resolute purpose, diligent culture and training. There must be strength of will to take command of the mental faculties, and make them subservient to its purpose. There must be determination to succeed, and a wise discipline and exercise of the mind with reference to the end in view. This faculty, like every other, requires education in order to its due development.

Whether certain Acts are performed without any Degree of Attention. — It is a question somewhat discussed among philosophers, whether those acts which from habit we have learned to perform with great facility, and, as we say, almost without thinking, are strictly voluntary; whether they do or do not involve an exercise of attention. Every one is aware of the facility acquired by practice in many manual and mechanical operations, as well as in those more properly intellectual. A musician sits at his instrument, scarcely conscious of what he is doing, his attention absorbed, it may be, with some engrossing topic of thought or conversation, while his fingers wander *ad libitum* among the keys and strike the notes of some familiar tune. Is there in such a case a special act of volition and attention preceding each movement of the fingers as they glide over the keys? And in more rapid playing, even when the attention is in general directed to the act performed, *i. e.*, the execution of the piece, is there still a special act of attention to the production of each note as they follow each other with almost inconceivable rapidity? Dr. Stahl, Dr. Reid, and others, especially many able physiologists, have answered this question in the negative, pronouncing the acts in question to be merely automatic and mechanical, and not properly involving any activity of mind. The mind, they would say, forms the general purpose to execute the given piece, but the particular movements and muscular contractions requisite to produce the individual notes, are, for the

most part, involuntary, the result of habit, not of special attention or volition.

The opposite View. — On the other hand, Mr. Stewart maintains that all such acts, however easily and rapidly performed, do involve mental activity, some degree of attention, some special volition to produce them, although we may not be able to recollect those volitions afterward. The different steps of the process are, by the association of ideas, so connected, that they present themselves successively to the mind without any effort to recall them, without any hesitation or reflection on our part, and with a rapidity proportioned to our experience. The attention and the volition are instantaneous, and therefore not subsequently recollected. Still, he would say, the fact that we do not recollect them is no proof that we did not exercise them. The musician can, at will, perform the piece so slowly, as to be able to observe and recall the special act of attention to each note, and of volition to produce it. The difference in the two cases lies in the rapidity of the movement, not in the nature of the operation.

Objection to this View. — The only objection to this view, of much weight, is the extreme rapidity of mental action, which this view supposes. An accomplished speaker will pronounce, it is said, from two to four hundred words, or from one to two thousand letters in a minute, and each letter requires a distinct contraction of the muscles, many of them, indeed, several contractions. Shall we suppose then so many thousand acts of attention and volition in a minute?

Reply to this Objection. — To this it may be replied that the very objection carries with it its own answer, since if it be true that the muscles of the body move with such wonderful rapidity, it is surely not incredible that the mind should be at least equally rapid in its movements with the body. To show that both mind and body often do act with great rapidity, Mr. Stewart cites the case of the equilibrist, who

balances himself on the slack rope, and at the same time balances a number of rods or balls upon his chin, his position every instant changing, according to the accidental and ever-varying motions of the several objects whose equilibrium he is to preserve, which motions he must therefore constantly and closely watch. Now to do this, the closest attention, both of the eye and of the mind, to each of these instantaneous movements, is absolutely necessary, since the movements do not follow each other in any regular order, as do the notes of the musician, and cannot, therefore, by any association of ideas, be linked together, or laid up in the mind.

The Question undecided. — The question is a curious one, and with the arguments on either side, as now presented, I leave it to the reader's individual judgment and decision. Mr. Stewart is doubtless correct as to the rapidity of mental and muscular action. At the same time it seems to me *there are* actions, whatever may be true in the cases supposed, that are purely *automatic* and *mechanical.*

Whether we attend to more than one thing at once. — Analogous to the question already discussed, is the inquiry whether the mind ever attends or can attend to more than one thing at one and the same time; as when I read an author, my attention meanwhile being directed to some other object than the train of thought presented by the page before me, so that at the end of a paragraph or a chapter I find that I have no idea of what I have been reading, and yet I have followed with the eye, and perhaps pronounced aloud, every word and line of the entire passage. To do this must have required some attention. Have I then the power of attending to two things at once? So, when the musician carelessly strikes up a familiar air while engaged in animated conversation, and when the equilibrist balances both his own body upon the rope, and also a number of bodies upon different parts of his body, each movement of each requiring constant and instant attention, the same question arises.

Opinion of Mr. Stewart. — Mr. Stewart, in accordance

with the view already expressed of the rapidity of the mind's action, maintains that we do not under any circumstances attend at one and the same time to two objects of thought, but that the mind passes with such rapidity from one to another object in the cases supposed, that we are unconscious of the transition, and seem to ourselves to be attending to both objects at once.

Illustration of this View. — An illustration of this we find in the case of vision. Only one point of the surface of any external object is at any one instant in the direct line of vision, yet so rapidly does the eye pass from point to point, that we seem to perceive at a glance the whole surface.

How it is possible to compare different Objects. — It may be asked, How is it that we are able to compare one object with another, if we are unable to bring both before the mind at once? If, while I am thinking of A, I have no longer any thought whatever of B, how is it possible ever to bring together A and B before the mind so as to compare them?

The answer I conceive to be this, that the mind passes with such rapidity from the one to the other object, as to produce the same effect that would be produced were both objects actually before it at the same instant. The transition is not usually a matter of consciousness; yet if any one will observe closely the action of his own mind in the exercise of comparison, he will detect the passing of his thoughts back and forth from one object to the other many times before the conclusion is reached, and the comparison is complete.

CHAPTER III.

CONCEPTION.

Character of this Power. — This term has been employed in various senses by different writers. It does not denote properly a distinct faculty of the mind. I conceive of a thing when I make it a distinct object of thought, when I apprehend it, when I construe it to myself as a possible thing, and as being thus and thus. This form of mental activity enters more or less into all our mental operations; it is involved in perception, memory, imagination, abstraction, judgment, reasoning, etc. For this reason it is not to be ranked as one of, and correlate with, these several specific faculties. Like the power of thought, and hardly even more limited than that, it underlies all the special faculties, and is essential to them all. Such at least is the ordinary acceptation of the term; and when we employ it to denote some specific form of mental activity, we employ it in a sense aside from its usual and established meaning.

Objects of Conception. — I conceive of an absent object of sight, as, *e. g.*, the appearance of an absent friend, or of a foreign city, of the march of an army, or the eruption of a volcano. I conceive also of a mathematical truth, or a problem in astronomy. My conceptions are not limited to former perceptions or sensations, nor even to objects of sensible perception. They are not limited to material and sensible objects. They embrace the past and the future, the actual and the ideal, the sensible and the super-sensible.

Conceptions neither true nor false. — Our conceptions are neither true nor false, in themselves considered; they become so only when attended with some exercise of judgment or of belief. We conceive of a mountain of gold or of

glass, and this simple conception has nothing to do with truth or error When we conceive of it, however, as actually existing, and in this or that place, or when we simply judge that such a mountain is somewhere to be found, then such judgment or belief is either true or false; but it is no onger simple conception.

Not always Possibilities; nor possible Things always conceivable. — Our conceptions are not always possibilities. We can conceive of some things not within the limits of possibility. On the other hand, not every thing possible even is conceivable. Existence without beginning or end is possible, but it is not in the power of the human mind, strictly speaking, to conceive of such a thing. I know that Deity thus exists. I understand what is meant by such a proposition, and I believe it. But I cannot construe it to myself as a definite intellection, an apprehension, as I can conceive of the existence of a city or a continent, or of the truth of a mathematical proposition.

The same may be said of the ideas of the infinite and the absolute. They are not properly within the limits of thought, of apprehension, to the human mind. Thought in its very nature imposes a limitation on the object which is thought of — fathoms it — passes around it with its measuring line — apprehends it: only so far as this is done is the thing actually thought; only so far as it can be done is the thing really thinkable. But the infinite, the unconditioned, the absolute, in their very nature unlimited, cannot be shut up thus within the narrow lines of human thought. They are inconceivable. They are not, however, contradictory to thought. They may be true; they are true and real, though we cannot properly conceive them.

The Inconceivable becomes Impossible, when. — Not every thing then which is inconceivable is impossible, nor, on the other hand, is every thing which is impossible inconceivable. The inconceivable is impossible, at least it can be known to

be so, only when it is either self-contradictory — as that a thing should be and not be at the same time — that a part is equal to the whole, etc.; or when it is contradictory of the laws of thought, as that two straight lines should enclose a space — that an event may occur without a cause — that space is not necessary to the existence of matter, or time to the succession of events. These things are unthinkable but they are more than that, contradictory of the established laws of thought; and they are impossible, because thus contradictory, and not merely because inconceivable. It is hardly true, as is sometimes affirmed, and as Dr. Wayland has stated, that our conceptions are the limits of possibility.

Mr. Stewart's use of the term Conception. — Mr. Stewart has employed the term Conception in a somewhat peculiar manner, and has assigned it a definite place among the faculties of the mind. He uses it to denote "that power of the mind which enables it to form a notion of an absent object of perception, or of a sensation which we have formerly felt." It is the office of this faculty "to present us with an exact transcript of what we have felt or perceived." In this respect it differs from imagination, which gives not an exact transcript, but one more or less altered or modified, combining our conceptions so as to form new results. It differs from memory in that it involves no idea of time, no recognition of the thing conceived, as a thing formerly perceived.

Objection to this use. — This use of the term is, on some accounts, objectionable. It is certainly not the ordinary sense of the word, but a departure from established usage It is an arbitrary limitation of a word to denote a part only instead of the whole of that which it properly signifies There is no reason, in the nature of the case, why the notion we form of an absent object of perception, or of a sensation, should be called a conception, rather than our

notion of an abstract truth, a proposition in morals, or a mathematical problem. I am not aware that any special importance attaches to the former more than to the latter class of conceptions. Indeed, Sir W. Hamilton limits the term to the latter. But this again is not in accordance with established usage.

INTELLECTUAL FACULTIES

PART FIRST

THE PRESENTATIVE POWER.

THE

PRESENTATIVE POWER

SENSE, OR PERCEPTION BY THE SENSES.

§ I. — General Observations.

This Faculty the Foundation of our Knowledge. — Of the cognitive powers of the mind, the first to be noticed, according to the analysis and distribution already given, is the Presentative Power — the power of cognizing external objects through the senses. This claims our first attention, inasmuch as it lies, chronologically at least, at the foundation of all our cognitive powers, and in truth, of our entire mental activity. We can, perhaps, conceive of a being so constituted as to be independent of sense, and yet possess mental activity; and we can even conceive such a mind as taking cognizance, in some mysterious way, of objects external to itself. But not such a being is man — not such the nature of the human mind. Its activity is first awak ened through sense; from sense it derives its knowledge of the external world, of whatever lies without and beyond the charmed circle of self; and whether *all* our knowledge is, strictly speaking, derived from sense, or not — a question so much disputed, and which we will not here stay to discuss — there can be no doubt that the activity of sense, and the knowledge thus acquired, is at least the beginning and foundation of all our mental acquisitions. We are constantly receiving impressions from without through the senses. In this way the mind is first awakened to activity,

and from this source we derive our knowledge of the external world.

General Character of this Faculty. — In its general character the faculty now under consideration, as the name indicates, is *presentative* and *intuitive*. It presents rather than represents objects, and what the mind thus perceives it perceives intuitively, rather than as the result of reflection. The knowledge which it gives is *immediate* knowledge, the knowledge of that which is now and here present, in time and space.

Involves a twofold Element. — Looking more closely at the character of this faculty, we find it to involve a twofold element, which we cannot better indicate than by the terms *subjective* and *objective*. There is, in the first place, the knowledge or consciousness of our own sentient organism as affected, and there is also the knowledge of something external to, and independent of the mind itself, or the me, as the producing cause of this affection of the organism. We know, by one and the same act, ourselves as affected, and the existence and presence of an external something affecting us. This presupposes, of course, the distinct independent existence of the *me* and the *not-me* — of ourselves as thinking and sentient beings, and of objects external to ourselves, and material,— a distinction which lies at the foundation of all sense-perception. All perception by the senses involves, and presupposes, the existence of a sentient being capable of perceiving, and of an object capable of being perceived. It supposes, also, such a relation between the two, that the former is affected by the presence of the latter. From this results perception in its twofold aspect, or the knowledge, on the part of the sentient mind, at once of itself as affected, and of the object as affecting it. According as one or the other of these elements is more directly the object of attention, so the subjective and the objective character predominate in the act of perception. If the former, then we think chiefly of the me as affected,

and are scarcely conscious of the external object as the source or the producing cause; if the latter, the reverse is true.

§ II — Analysis of the Perceptive Process.

Simple Sensation. — The nature of the presentative power may be better understood by observing closely the different teps of the process. As we come into contact with the external world, the first thing of which we are conscious, the first step in the process of cognition, is doubtless simple sensation. Something touches me, my bodily organism is thereby affected, and I am conscious, at once, of a certain feeling or sensation. I do not know as yet what has produced the sensation, or whether any thing produced it. I do not as yet recognize it as the result of an affection of the bodily organism, or even as pertaining to that organism in distinction from the spiritual principle. I am conscious only of a certain feeling. This is simple *sensation* — a purely subjective process.

Recognition of it as such. — We do not, however, stop here. The mind is at once aroused by the occurrence of the phenomenon supposed, the attention is directed to it. I cognize it as sensation, as feeling. If it be not the first instance of the kind in my experience, I distinguish it from other sensations which I have felt.

Distribution of it to the Parts affected. — More than this; I am conscious not only of the given sensation, but of its being an affection of my bodily organism, and of this or that part of the organism; I distinguish the body as the seat of the sensation, and this or that part of the body as the part affected. The organism as thus affected becomes itself an object of thought as distinct from the thinking mind that animates and pervades it. It becomes to me an externality, having extension and parts out of and distinct from each other. As thus viewed, and brought now for the first time under the eye of consciousness, it becomes known

to me as the *non-ego*, still connected, however, by sensation with the ego, the sentient principle and as thus viewed, I become aware that the sensation which I feel is an affection of that organism, and of a certain portion of it, as the hand, or the foot. This cognizance of the sensation as such, as pertaining to the organism, and to this or that part of the same, and the consequent cognizance of the organism as such, as distinct from the sentient mind, and as thus and thus affected, is no longer simple *sensation*, it is *perception*.

Cognition of something external to the Organism itself — This is the most simple form of immediate perception. The process does not, however, necessarily stop here. I am conscious not only of this or that part of my organism as affected, but of something external to the organism itself, in contact with and affecting it. This organism with which I find myself connected, the seat of sensation, the object of perception, is capable of self-movement in obedience to my volitions. I am conscious of the effort to move my person, and conscious also of being resisted in those movements by something external in contact with my organism. This yet unknown something becomes now the object of attention and perception — this new phenomenon — resistance, something resisting. To perceive that I am resisted, is to perceive that something resists, and to perceive this is to perceive the object itself which offers such resistance. I may not know every thing pertaining to it, what sort of thing it may be, but I know this respecting it, that it exists, that it is external to my organism, that it resists my movements. Thus the outer world becomes directly an object of perception — passes under the immediate eye of consciousness.

In what Sense these several Steps distinct. — In the preceding analysis, in order more clearly to illustrate the nature of the process, we have regarded the act of perception as broken into several distinct parts, or steps of progress. This, however, is not strictly correct as regards the psychology of the matter. Logically, we may distinguish the simple

sensation as mere feeling, from the reference of the same to this or that part of the bodily organism as affected, and each of these again, from the cognizance of the external object, which by contact or resistance produces the sensation. Chronologically, the act is one and indivisible. The sensation and the perception are synchronous. We cannot separate the act of sense-perception into the consciousness of a sensation, the consciousness of the bodily organism as affected by that sensation, and the consciousness of an external something as the proximate cause of that affection. To experience a sensation, is to experience it as here or there in the sentient organism, and to perceive contact or resistance, is to perceive something in contact or resisting. There may, however, be sensation without cognizance of the external producing cause.

Restricted Sense of the term Perception. — According to the view now advanced, perception is *immediate;* not a matter of inference, not a roundabout reflective process. It is a cognizance direct and intuitive of the bodily organization as thus and thus affected, and of an external something in correlation with it, affecting and limiting that organism in its movements.

Usually, however, a wider range has been given to the term, and the faculty thereby denoted. It has been made to comprehend any mental process by which we refer a specific sensation to something external as its producing cause. It is thus employed by Reid and Stewart, and such has been in fact the prevalent use of the term. According to this, when we experience the sensation of fragrance, and refer that sensation to the presence of a rose, or the sensation of sound, and refer it to the stroke of a bell, or a passing carriage, we exercise the faculty of perception. Evidently, however, our knowledge in these cases is merely a matter of inference, of judgment, not of immediate direct perception, not in fact of perception at all. All that we properly perceive in such a case, all that we are directly conscious of

is the fragrance or the sound. That these are produced by the rose and the bell is not perceived, but only *conceived*, inferred — known, if at all, only by the aid of previous experience.

Sensation as distinguished from Perception. — According to the view now presented, *sensation*, as distinguished from *perception*, is the *simple feeling* which results from a certain affection of the organism. It is known to us merely *as* feeling. Perception takes cognizance of the feeling *as an affection of the organism*, and also of the organism as thus affected, and consequently as external to the me, extended, having parts, etc. It apprehends also objects external to the organism itself limiting and affecting its movements. Sensation is the indispensable condition of perception. If there were no sensation, there would be no perception. The one does not precede, however, and the other follow in order of time, but the one being given, the other is given along with it. The two do not, however, coexist in equal strength, but in the relation, as stated by Hamilton, of *inverse ratio;* that is, beyond a certain point, the stronger the sensation, the weaker the perception, and *vice versâ*.

Sensation as an Affection of the Mind. — It has been common to speak of sensation as lying wholly in the mind. Primarily, however, it is an affection of the nervous organism, and through that organism, as thus affected, an impression is made on the mind. If it were not for the mind present with the organism, and susceptible of impression from it, and thus cognizant of changes in it, the same changes might be produced in the organism as now, but we should be entirely unconscious of and insensible to them. In certain states of the system this actually happens, as in sound sleep, the magnetic state, the state produced by certain medicinal agents as ether, chloroform, opium, and the intoxicating drugs of the East. In those cases, the connection between the mind and the nervous organism seems to be in some manner interrupted or suspended, and conse-

quently there is for the time no sensation. The nerves may be irritated, divided even, and still no pain is felt.

It is not true, however, that the sensation is wholly in the mind. It is in the living animated organism, as pervaded by the mind or spiritual principle, mysteriously present in every part of that organism, and cognizant of its changes; and neither the body alone, nor the mind alone, can be said to possess this faculty, but the two united in that complex mysterious unity which constitutes our present being.

§ III. — Analysis and Classification of the Qualities of Bodies.

Difference of Qualities. — The qualities of bodies as known to us through sensation and perception are many and various. On examination, a difference strikes us as existing among these qualities, which admits of being made the basis of classification. Some of them are qualities which strike us at once as essential to the very existence of matter, at least in our notion of it, so that we cannot in thought divest it of these qualities, and still retain our conception of matter. Others are not of this nature. Extension, divisibility, size, figure, situation, and some others, are of the former class. If matter exists at all, it must, according to our own conceptions, possess these qualities. We cannot think them away from it, and leave matter still existing. But we can conceive of matter as destitute of color, flavor, savor, heat, cold, weight, sound, hardness, etc. These are contingent and accidental properties not necessary to its existence.

How named and distinguished. — Philosophers have called the former class *primary*, the latter *secondary* qualities. The former are known *à priori*, the latter by experience. The former are known as qualities, in themselves, the latter only through the affections of our senses.

The primary qualities then have these characteristics:

1. They are essential to the very existence of matter, at least in our conception.

2. They are to be known *à priori*.

3. They are known as such, or in themselves.

The secondary, on the contrary, are:

1. Accidental, not essential to the notion of matter.

2. To be known only by experience.

3. To be learned only through the affection of the senses.

Further Division of secondary Qualities. — A further division, however, is capable of being made. The secondary qualities, as now defined, comprise, in reality, two classes. There are some, which, while known to us only through the senses, have still an existence as qualities of external objects, independent of our senses. As such they are objects of direct perception. Others, again, are known, not as qualities of bodies, but only as affections of sense, not as objective, but only as subjective, not as perceptions, but only as sensations. Thus I distinguish the smell, the taste, and the color of an orange. What I distinguish, however, is after all only certain sensations, certain affections of my own organism. What may be the peculiar properties or qualities in the object itself which are the exciting cause of these sensations in me, I know not. My perception does not extend to them at all. It is quite otherwise with the qualities of weight, hardness, compressibility, fluidity, elasticity, and others of that class. They are objects of perception, and not of sensation merely.

These Classes, how distinguished. — The class first named, are qualities of bodies as related to other bodies. The other class are qualities of bodies as related only to our nervous organization. The former all relate to bodies as occupying and moving in *space*, and come under the category of *resistance*. The latter relate to bodies only as capable of producing certain sensations in us. We may call the former *mechanical*, the latter *physiological*.

Connection of Sensation with the external Object. — From long habit of connecting the sensation with the external body which produces it, we find it difficult to per

made ourselves that taste and smell are mere affections of our senses, or that color is really and simply an affection of the optic nerve of the beholder, and that what is actually perceived in these instances is not properly a quality of the external object. A little reflection, however, will convince us that all which comes to our knowledge in these cases, all that we are properly cognizant of, is the affection of our own nervous organism, and that whatever may be the nature of the qualities in the object which are the producing cause of these sensations in us, they are to us occult and wholly unknown.

Power of producing these Sensations. — It is not to be denied, of course, that there is in external objects the power of producing these sensations in us, under given circumstances; but to what that power is owing, in what peculiarity of constitution or condition it consists, we know not. We have but one name, moreover, for the power of producing, and the effect produced. Thus the color, taste, smell, etc., of an object may denote either the sensation in us, or the unknown property of matter by virtue of which the sensation is awakened. It is only in the sense last mentioned, that the qualities under consideration may properly be called qualities of bodies.

Enumeration of the several Qualities as now classed. — According to the classification now made, the qualities of bodies may be thus enumerated.

I. *Primary.* — Extension, divisibility, size, density, figure absolute incompressibility, mobility, situation.

II. *Secondary.* — A. *Objective*, or *mechanical* — as heavy or light, hard or soft, firm or fluid, rough or smooth, compressible or incompressible, resilient or irresilient, and any other qualities of this general nature resulting from attraction, repulsion, etc.

B. *Subjective* or *physiological* — as color, sound, flavor, savor, temperature, tactual sensation, and certain other affections of the senses of this nature.

§ IV. — Organs of Sense. — Analysis of their Several Functions.

Number of the Senses. — The different senses are usually reckoned as five in number. They may all be regarded, however, as modifications of one general sense, that of touch — or, in other words, the susceptibility of the nervous system to be excited by foreign substances brought into contact with it. This is the essential condition of sensation in any case, and the several senses, so called, are but so many variations in the mode of manifesting this excitability There is a reason, nevertheless, for assigning five of these modifications and no more, and that is, that the anatomical structure indicates either a distinct organ, as the ear, the eye, etc., or at least a distinct branch of the nervous apparatus, as in the case of smell and taste, while the whole nervous expansion as spread out over the surface of the body contributes to the general sense of touch.

The Senses related to each other. — Distinct Office of each. — It is evident enough that these several senses sustain a certain relation to each other. They are so many and no more, not merely by accident; not merely because so many could find room in the bodily organization; not merely because it might be convenient to have so many. Let us look at the office performed by each, and we shall see that while each has its distinct function, not interchangeable with that of any other, it is a function more or less necessary to the animal economy. Remembering that the design and use of the several senses is to put us in possession of data, by means of which, directly or indirectly, we may gain correct knowledge of the external world, let us suppose the inquiry to be raised, What senses ought man to have for this purpose? What does he need, the material universe remaining what it is?

Function of the Sense of Touch. — Things exist about us in space, having certain properties and relations. We need a sense then, first and chiefly, that shall acquaint us

with objects thus existing, taking cognizance of what lies immediately about us in space. This we have in the general sense of touch, making us acquainted with certain objective or mechanical qualities of external objects.

This Sense, how limited. — This, however, avails only for objects within a short distance, and capable of being brought into contact. It operates also synthetically and slowly, part after part of the object being given as we are brought into contact with different portions of it successively until the process is so far complete that, from the ensemble of these different parts, our understanding can construct the whole.

Possibility of a Sense that shall meet these Limitations. — We can conceive of a sense that should differ in both these respects — that should take cognizance of distant objects, not capable perhaps of being brought into contact — and that should also operate analytically, or work from a given whole to the parts, and not from the parts to a whole, thus giving us possession at once of a complete object or series of objects. Such a sense, it is easy to see, would possess decided advantages, and in connection with the one already considered, would seem to bring within the sphere of our cognizance almost the complete range of external nature. This we have, and this exactly, in the sense of *vision*. It takes in objects at a distance, and takes in the whole at a glance.

This new Sense still limited. — This new sense, however, convenient and useful as it is, has evidently its limitations. It is available only through a given medium, the light. Strictly speaking, it is the light only that we see, and not the distant object; that is known indirectly by means of the light that variously modified, travels from it to the eye. When this fails, as it does during several hours of the twenty-four, or when it is intercepted by objects coming between and shutting out the forms on which the eye seeks in vain to rest, then our knowledge from this source is cut off.

Still another Sense desirable. — Under these circumstances, might it not be well, were there given an additional sense, of the same general nature and design, but operating through a different medium, sure to be present wherever animal life exists, so that even in the darkness of the night, or the gloom of the dungeon, we might still have means of knowing something of the surrounding objects. And what of this medium, or avenue of sense, were of such a nature as to be capable of modification, and control, to some extent, on our part, and at our pleasure, so as to form a means of voluntary communication with our fellow-beings. Would not such an arrangement be of great service? Exactly these things are wanted; exactly these wants are met, and these objects accomplished, by a new sense answering to these conditions — the sense of *hearing* — the cognizance of sound. This we produce when we please by the spoken word, the vocal utterance, whether of speech, or musical note, or inarticulate cry, varied as we please, high, low, loud, soft — a complete alphabet of expression, conveying thus by signals, at once rapid and significant, the varying moods and phases of our inner life to other beings that had else been strangers, for the most part, to the thoughts and feelings which agitate our bosoms.

Senses for another Class of Qualities. — The senses, as thus far analyzed, have reference primarily to the number magnitude, and distance of objects as occupying space — to quantities rather than qualities. Were it possible now to add to these a sense, or senses that should take cognizance of quality, as well as existence and quantity — that should detect, to some extent at least, the *chemical* properties of bodies as connected especially with the functions of respiration and nutrition — the list of senses would seem to be complete. This addition is made, this knowledge given, in the senses of *smell* and *taste*.

Possibility of additional Senses. — To those already named, other senses might doubtless have been added by

the Creator, which would have revealed, it may be, properties of matter of which we have now no conception. It is not to be supposed that we know every thing respecting the nature and qualities of even the most familiar and common objects. Many things there may be, actual, real, in the world about us, of which we know nothing, because they come not within the range of any of our senses. But all that is essential to life, and happiness, and highest welfare is doubtless imparted by the present arrangement; and when closely studied, no one of these senses will be found superfluous, no one overlapping the province of another, but working each its specific end, and all in harmony.

The proper Office of Psychology in respect to the Senses.— It is the province of the anatomist and the physiologist to explain the mechanical structure of the several organs of sense, and their value as parts of the physical system. The psychologist has to do with them only as instruments of the mind, and it is for him to show their connection and proper office as such. This has been attempted in the preceding analysis.

The kind of Knowledge afforded by the Senses.— It is to be noticed, in addition, that with the exception of the tactual sense, and possibly of sight, these senses give us no direct, immediate knowledge of external things. They simply furnish data, signs, intimations, by the help of which the understanding forms its conclusions of the world without. They are the *receiving* agents of the mind. This is, in fact, the chief office of sense, to receive through its various avenues the materials from which the understanding shall frame conceptions of things without; to convey, as is were, a series of telegraphic despatches along those curious and slender filaments that compose the nervous organization, by means of which the soul, keeping her hidden seat and chamber within, may receive communication from the distant provinces of her empire. These signs the understanding interprets; and in so far as this is the true nature of the

process, it is not a process of immediate and proper perception. I hear, for example, a noise. All that I really perceive in this case is the sensation of sound. I refer it, however, to an external cause, to a carriage passing in the street. I specify, moreover, the kind of carriage, perhaps a coach, or a wagon with iron axles. I have observed, have learned by experience, that sounds of this nature are produced in this way, that is, by carriages passing, and by such carriages. Hence I judge that the sound which I now hear is produced in the same way. It is an *inference*, a conception merely. All that sense does is to receive and transmit the sign, which the understanding interprets by the aid of former experience. And the same is true of the other senses, with the exceptions named.

Not therefore of little Value. — We are not to infer, however, that these senses are on this account of no special value or importance to us. They do precisely what is needed. They put us in possession of just the data wanted in order to the necessary information concerning external things. It is only the theorist who undervalues the senses, and he only in his closet. No man, in the full possession of his reason, and his right mind, can go forth into this fair and goodly world, and not thank God for every one of those senses — sight, hearing, taste, touch, and smell. Their true and full value, however, we never learn till we come to be deprived of their use; till with Milton we exclaim,

> "Seasons return; but not to me returns
> Day, or the sweet approach of even or morn."

§ V. — Amount of Information Derived from the Respective Senses

A further Question as to one Class of the Senses. — The relations and specific functions of the several senses have been already described. Some further questions arise, however, respecting the precise amount and kind of information afforded by that class of the senses which, as we

have seen, relates to the spatial properties of bodies, in distinction from the chemical, viz.: hearing, sight, and touch.

What is given in Hearing. — And first, as to the sense of *hearing*. What is it precisely that we hear? When we listen to a sound, we speak of hearing the object that produces the sound; we say, I hear a bell, a bird, a gun, etc. Strictly speaking, we do not hear the object, but only the sound. It is not the bell or the bird that we hear, but the vibration of the air produced by bell and bird. This has been already illustrated by reference to a carriage passing in the street. It is only by experience, aided by other senses, that we learn to refer the sound to its producing cause.

Hearing not properly Perception. — Is hearing then a sensation merely, or is it a perception? If by perception we mean a direct knowledge of the external object — which is the proper sense of the word — hearing certainly is not perception. It gives us no such immediate knowledge. What we perceive in hearing is merely the sensation of sound. It may be doubted whether by this sense alone we should ever get the idea that what we hear is any thing external to ourselves.

Affords the means of Judging. — As it is, however, we judge, not only of the existence and nature, but of the distance and direction of the external object whence the sound proceeds. We learn to do this with great correctness, and with great facility. No sooner do we hear a sound, in most instances, than we form an opinion at once, from what direction it comes, and what produces it; nor are we often mistaken in our judgment. The faculty of judging by the ear as to the direction of the sound, and the nature of the object producing it, may be cultivated by care and practice to a remarkable degree of accuracy. Napoleon was seldom mistaken as to the direction and distance of a cannonade. It is said that the Indian of the north-western prairies by applying his ear to the ground, will detect the approach of a body of cavalry at a distance beyond the

reach of vision, and distinguish their tread from that of a herd of buffaloes.

Number of Sounds. — The number of sounds which the ear can distinguish is almost without limit. There are, it is said, five hundred distinct tones which an ear of usual accuracy can recognize, and each of these tones admits of five hundred variations of loudness, giving, in all, two hundred and fifty thousand different sounds.

Power of Sound over the Mind. — The power of sound to affect the mind, and especially the feelings, is too well known to require specific statement. The note of an instrument, the tone of a human voice, the wild warbling of a bird, the tinkling of a bell, the variations of speech and of song, from the high and shrill to the low and heavy intonation, from the quick and impetuous to the slow and plaintive movement, these simple varieties of tone affect powerfully the heart, and find their way at once and irresistibly to the feelings. Hence the power of music over even the uncultivated mind; hence too in no small degree the power of the skilful orator over the feelings of his audience. It is not merely, nor so much, the thing said, in many cases, as the way of saying it, that touches and sways the assembled multitude. Tones and sounds have a natural meaning. They are the natural language of the heart. They express emotion, and hence awaken emotions in others.

The Question as to Sight. — Turning now from the sense of *hearing* to that of *sight*, the question arises, What is it precisely that we perceive by the eye? When we fix the eye upon any object, more or less remote, what is it, strictly speaking, that we see, extension and figure, or only color? Is it by vision that we learn primarily the distance of objects and their locality? These are points requiring investigation.

Does Sight give Extension and Figure. — As to the first of these questions, whether extension and figure are objects of direct visual perception. No doubt they are associated

in our minds with the act of vision, so that the moment we see an object we obtain an idea of it as extended, and of such and such dimensions and figure. The question is, whether it is really through the sense of sight that we obtain this idea, or in some other way. Had we no other means of information, would sight alone give us this? When we first open our eyes on external objects, do we receive the idea of extension and figure, or only of color? The fact that as matters are, we cannot in our experience separate the notion of some surface extension from the sensation of color, is not decisive of these questions. We cannot, as Dr. Brown observes, separate the color from the convexity and magnitude of an oak before us, but this does not prove that convexity and magnitude are objects of immediate and original perception. If every surface in nature had been convex, suggests the same writer, we should probably have found the same difficulty in attempting to conceive of color as separate from convexity, that we now find in attempting to conceive of it as separate from length and breadth. As it is, however, our sensation of color has not always been associated with convexity, while it has been always associated with surface extension. Hence it is, he maintains, that we seem to perceive, by the eye, the length, and breadth, and objects along with their color.

Argument from the Affection of a Portion of the Retina. — The fact that in vision a certain portion of the retina in length and breadth is actually affected by the light falling on it, has been supposed by some to be conclusive of the fact that we perceive the length and breadth of the external object by the eye. This does not necessarily follow. As Dr. Brown contends, it is equally true that a certain part of the organ of smell is affected by odors, and a certain part of the auditory nerve is affected by sounds, yet we are not conscious of any perception of extension by either of these organs; we neither smell nor hear the length, and breadth, and magnitude of objects; nor is there any reason to suppose

that the particular portion of the retina affected has any thing to do with the original sensation of sight.

Amount of the preceding Arguments. — These arguments however, do not strike me as conclusive. They merely show the *possibility* that extension and figure *may be* acquired rather than original perceptions. They do not amount to positive evidence that they *are* so.

An Argument to the Contrary. — On the other hand, there is one consideration of a positive character, which to most minds will be likely to outweigh the merely negative arguments already adduced. Color is a property of light, and light comes to us reflected from objects occupying space; we perceive it only as we perceive it spread over and reflected from some surface. Extension, then, surface expansion of the reflecting object, is the indispensable condition of the visibility of light itself, and so of color, as reflected from the object. Now it is difficult to persuade ourselves that what we know to be an essential condition of the perception of color, and what we seem to perceive along with the color, and cannot, even in thought, wholly separate from it, is not, after all, really perceived by the eye.

Argument from recent Discoveries. — Indeed, recent discoveries in science seem to vindicate that not only surface extension, but trinal extension, or *solidity*, may be an object of direct perception by the eye. I refer to the researches of Wheatstone, in binocular vision, which go to show, that in consequence of the difference of the images formed upon the right and the left eye, as occupying different positions with reference to the object seen, we are enabled by the eye to cognize the solidity as well as the extension of objects. The difference of figure in the two images gives us this. That such is the case is shown by an instrument, the stereoscope, so constructed as to present separately the image as formed on each eye, which, when separately viewed, appear as mere plane surfaces, but when viewed together, the right image with the right eye, and

the left one with the left eye, at the same time, present no longer the appearance of plane surfaces, but the two images combine to form one distinct figure, and that a solid, having length, breadth, thickness, and standing out with all the semblance of the real object.

It is hardly necessary to say that if extension is an object of perception by the eye, so also is figure, which is merely the *limitation* of extension in different directions.

Second Question — Does Sight give Distance? — Is it also by vision that we obtain the idea of the *distance* of objects and their externality? Does vision alone give the idea that what we see is numerically distinct from ourselves, and that it occupies this or that particular locality? So it would seem, judging from the impression left upon the mind in the act of vision. We seem to see the object as here or there, external, more or less distant in space. We distinguish it from ourselves.

The negative View. — This is denied by some. All that we see, they contend, is merely the light coming from the object, and from the variations and modifications which this exhibits we learn to judge by experience of the distance and locality of the object. It is a matter of judgment and not of perception. We have learned to associate the two things, the visual appearance and the distance.

Argument in the Negative. — In proof of this they adduce the fact that we are frequently mistaken in our estimate of the distance of objects. If there be more or fewer intervening objects than usual, if the atmosphere be more or less clear than usual, or any like circumstance affords a variation from our ordinary experience, we are misled as to the distance of the object. Hence we mistake the distance of ships at sea, or of objects on a prairie or a desert, the width of rivers, the height of steeples, towers, etc.

Further Argument in the Negative. — It is further contended that facts show that the impressions of sight alone, uncorrected by experience, do not convey the idea of dis-

tance at all, but that what we see seems to be in contact with the eye itself, until we learn the contrary by the aid of other senses. This, it is said, is the experience of persons who have been operated upon for cataract, particularly of a patient whose case is described by Cheselden, and who thought every thing which he saw, touched his eyes. It is said also to have been the same with Caspar Hauser, when first liberated from the long confinement of his dungeon, and permitted to look out upon the external world. The goodly landscape seemed to him to be a group of figures, drawn upon the window.

Force of this Argument. — This, however, is not inconsistent with the perception of externality by vision, since even what seems to be in contact with the eye, nay, what is known to be so, may still be known as external. Contact implies externality. It is very much to be doubted, moreover, whether the cases now referred to, coincide with the usual experience of those who are learning to see. The little child seems to recognize the externality and remoteness from his own person of the objects which attract his attention, as soon as he learns to observe surrounding objects at all, and, though he may not judge correctly of their relative distance from himself, never seems by his movements to suppose that they are in contact with his eye or with any part of his person. The young of animals, also, as soon as they are born, seem to perceive by the eye, the externality, the direction, and the distance of objects, and govern their movements accordingly. It is not, in these cases, a matter of experience, but of direct perception. These facts render it doubtful, to say the least, whether the common impression — that which in spite of all arguments to the contrary, is, and always will be made upon the mind in the act of vision, viz., that we see objects as external, as having locality, and as more or less remote from us — is not, after all, the correct impression.

Learning to judge of Distance not inconsistent with this

View. — Nor does it conflict with this view that we learn to judge of the true distance of objects, and are often deceived in regard to it. The *measurement* of distance, the more or less of it, is of course a matter of experience, a thing to be learned by practice. It does not follow, however, that we may not by the eye directly, and at first, perceive an object to be external, and removed from us, in other words distant, though we may not know at first *how* distant. The rays of light that come tc us from this external object, may give us direct perception of the object as external, as extended, and as occupying apparently a given locality in space more or less remote, while at the same time it may be left to other senses and to experience to determine how great that distance is.

Questions as to Touch. — Passing now from the sense of sight to that of *touch*, we find similar questions discussed among philosophers respecting the precise information afforded by this sense. Does touch give us immediate perception of externality, extension, form, hardness, softness, etc., including the various mechanical properties of bodies? To this sense it has been common to ascribe these faculties of perception. They are so attributed by Reid, Upham, Wayland, and, I believe, by modern writers generally, with the exception of Brown and Hamilton.

Probability of another Source of Information. — It may be questioned, I think, whether, as regards some of these qualities at least, it is not rather the consciousness of resistance to muscular effort, than the sense of touch, properly speaking, that is the informing source. So, for example, as to hardness; the application of an external body lightly to he hand awakens the sense of touch, but conveys no idea of hardness. Let the same object be allowed to rest with gradually increasing weight upon the hand until it becomes painful, and we get the idea of weight, gravitation, but not of the hardness or impenetrability of the object. It is only when our muscular effort to move or penetrate the external

body is met and resisted by the same, that we learn the impenetrability of the opposing body.

Other Perceptions attributable to the same Source. — So with regard to externality, extension, and form. When an external object, a cube, for example, or an ivory ball, is placed on the palm of the hand, sensation is awakened, but is that sensation necessarily accompanied with the perception of the external object as such? Does the mere tactual sensation, in the first instance, and of itself, inform us that there is something external to ourselves, that what we feel is not a part of our own organism? We are conscious of a change in the sensation of the part affected, but are we immediately conscious that this change is produced by something external? Let there be given, however, the consciousness of resistance to our muscular movements, as when the cube or ball, for instance, prevents the effort to close the hand, or when our locomotion is impeded by the presence of some obstacle, and will not the same resistance inform us of the extension of the resisting body, and so of its form and figure? We learn whereabout in space this resistance occurs, and where it ceases. The tactual sensation would indeed very soon come to our aid in this cognition, and serve as a guiding sense, even in the absence of the former. The question is, whether this alone would, in the first instance, give us such cognitions?

Our first Ideas of Extension, how derived. — We have had reference in this discussion only to the qualities of *external* bodies. There can be little question that our *first* ideas of extension are derived from our own sentient organism, the consciousness of sensations in different parts of the body, distinct from, and out of each other, thus affording the knowledge of an extended sentient organization. The idea of externality, or outness, and extension, thus acquired, the transition is easy from the perception of our own bodies as possessing these qualities, to the cognizance of the same qualities in external objects.

§ VI. — Credibility of our Sensations and Perceptions.

Denied by some. — There have always been those who were disposed to call in question the testimony of the senses. Such were the Eleatics and the Skeptics among the Greek philosophers, and there have not been wanting among the moderns minds of acuteness and ingenuity that have followed in the same path. While admitting the *phenomena* of sense, the *appearance* of things as being so and so, they have called in question the corresponding objective reality Things appear to me to be thus and thus — such and such impressions are made on my senses — that I cannot deny; but how do I know that the reality corresponds to my impressions, or, in fact, that there is any reality? How know we our senses to be reliable? What evidence have we that they do not habitually deceive us?

Evidence demanded. — It were perhaps a sufficient answer to this question to reply, What *evidence* have we, or can we have, that they *do* deceive us? In the absence of all evidence to the contrary, is it not more reasonable to suppose that our perceptions correspond to realities, than that they are without foundation, uncaused, or caused by something not at all answering to the apparent object of perception; more reasonable to suppose that there is a real table or book answering to my perception of one, than that I have the perception while there is no such reality? It remains with those, then, who question and deny the validity of sense-perception, to show reasons for such denial. And this becomes the more imperative on them, inasmuch as they contradict the common belief and universal opinion of mankind — nay, what, in spite of all their arguments, is still, by their own confession, their own practical conviction and belief.

Evidence impossible. — But whence is this evidence to come? Where is it to be sought? How are we to prove that sense deceives us, except by arguments drawn from sense? And if sense is not reliable in the first instance,

why re.y upon it in the second, to prove that it is not reliable? If the senses do habitually deceive us, manifestly it can never be shown that they do. And, even if this could be shown, it would be impossible to find any thing better to rely upon in their stead. We have these guides or none. We have these instruments of observation provided for the voyage of life. We may pronounce them worthless and throw them into the sea, but we cannot replace them.

Inconsistent and contradictory Testimony of Sense.— But it may be replied that the testimony of sense is often inconsistent with itself, and contradictory of itself. What is sweet to one is sour and bitter to another. What seems a round tower in the distance becomes a square one as you approach; and the straight stick that you hold in your hand appears crooked when thrust into the water. There is in reality, however, no contradiction or inconsistency in the cases supposed. The change of circumstances accounts in every instance for the change of appearance. In the case of the stick, for example, the different density of the water accounts for the refraction of the rays of light that pass through it, and this accounts for the crooked appearance of the stick that is only partially submerged. So in the other cases; it is no contradiction that an object which appears round at a distance of ten miles, should appear square at the distance of so many rods — or that the taste of two persons should not agree as to the savor of a given object.

Deceptions of Sense. — It may be further objected that in certain states of the physical organism, sensations are experienced which seem to be of external origin, but are really produced by internal changes; and that in such cases we have the same perceptions, see the same objects, hear the same things, that we should if there were a corresponding external reality, while nevertheless there is no such reality, and it can be proved that there is none. If this may happen in some cases, why not in others, or in all?

Reply. — I reply, the simple fact, that in the case sup-

posed the deception can be detected and proved, shows the difference between that and ordinary perception. If the senses were not habitually reliable, we could not detect the mistake in this particular instance. If all coin were counterfeit, how could we detect a counterfeit coin? We know, moreover, how to account for the mistake in the case before us. It occurs, by the supposition, only in a certain state of the organism, that is, only in a diseased, abnormal condition of the system. The exception proves the rule.

Distinction of direct and indirect Testimony. — A distinction is to be made, in the discussion of this subject, between the direct and indirect testimony of the senses, between that which is strictly and properly perception, and that which is only conception, judgment, inference. What I really perceive, for example, in the case of the distant tower, or the stick partially under water, is only a given appearance; I *infer* from that appearance that the tower is round and the stick crooked, and in that inference I am mistaken. My judgment is at fault here, and not my senses. They testified truly and correctly. They gave the real appearance, and this was all they could give, all they ever give. This has been well stated by Dr. Reid, and, long before him, the same ground was taken, in reply to the same objection, by Aristotle and also by Epicurus.

Direct Perception gives what. — In regard to direct and immediate perception, the case is different. Here the testimony is positive to the existence of the object. When something resists my voluntary movement, I am conscious of that resistance, conscious of something external and resisting. I cannot deny the fact of that consciousness. I may, however, deny the correctness, the truthfulness of what consciousness affirms. To do this, however, is to put an end to all reasoning on the subject, for, when we give up consciousness as no longer reliable, there is nothing left to fall back upon. If any one chooses to leap from this precipice, we can only say *finis*.

§ VII. — Historical Sketch.

I. Of Different Divisions of the Qualities of Bodies.

The Greek Philosophers. — The distinction of the qualities of bodies into two classes, differing in important respects, is by no means a modern one. It was recognized by some of the earlier Greek philosophers, who held that the sweet, bitter, hot, cold, etc., are rather affections of our own senses than proper qualities of matter, having independent existence. Subsequently the view was adopted by Protagoras, and by the Cyrenean and Epicurean schools. Plato held it, and especially and very fully, Aristotle, who calls the qualities to which we have referred, and which are usually denominated secondary, *affective* qualities, because they have the power of affecting the senses, while the qualities now usually termed primary, as extension, figure, motion, number, etc., he regards as not properly objects of sense. The former class he calls proper sensibles, the latter, common.

The Schoolmen. — The *schoolmen* made much of this distinction, and held, with Aristotle, that the qualities now called primary, require, for their cognition, other faculties than those of sense.

Doctrine of Galileo. — *Galileo* points out the true ground and philosophy of this distinction, and also gives the name *primary* to the class referred to, viz., *those qualities which are necessary to our conception of body*, as for example, figure, size, place, etc., while, on the contrary, colors, tastes, etc., are not inherent in bodies, but only in us, and we can conceive of body without them. The former are real qualities of bodies, while the latter are only conceptions which give us no real knowledge of any thing external, but only of the affections of our own minds.

The Moderns. — *Descartes* and *Locke* merely adopted these distinctions as they found them, without essential modification. So also did *Reid* and *Stewart*, although both

included among the primary qualities some which are properly secondary, as roughness, smoothness, hardness, softness. Indeed Stewart restricted the primary qualities to those and such as those just named.

Hamilton. — No writer has so fully elaborated this matter as Sir William Hamilton, to whom we are indebted mainly for the historical facts now stated, and whose dissertations are and must ever remain an invaluable thesaurus on the philosophy of perception. So complete and elaborate is his classification of the qualities of matter, that I shall be pardoned for giving a synopsis of its principal points in this connection.

Hamilton's Scheme — General Divisions. — He divides the qualities of bodies into three classes, which he calls primary, secundo-primary, and secondary. The primary are thought as essential to the very notion of matter, and may be deduced *à priori*, the bare notion of matter being given; while the secundo-primary and the secondary, being accidental and contingent, must be deduced *à posteriori*, learned by experience. His deduction of the primary qualities is as follows:

Primary Qualities. — We can conceive of body only as, I. Occupying space; II. Contained in space. Space is a necessary form of thought, but we are not obliged to conceive of space as occupied, that is, to conceive of matter. When conceived it must be under the conditions now named.

I. The property of occupying space is *Simple Solidity*, which implies, *a.* Trinal extension, or length, breadth, and thickness; *b.* Impenetrability, or the property of not being reduced to non-extension. Trinal extension involves, 1. Number, or Divisibility; 2. Size, including Density; 3. Shape.

II. The attribute of being contained in space, affords the notion, 1. Of Mobility; 2. Of Position.

The essential and necessary constituents then of our no

tion of matter are, 1. Extension (comprising under it, 2 Divisibility; 3. Size; 4. Density; 5. Figure); 6. Ultimate Incompressibility; 7. Mobility; 8. Situation. These are the primary qualities, products, in a sort, of the understanding, developing themselves with rigid necessity out of the given notion of substance occupying space.

Secundo-Primary Qualities. — The secundo-primary are contingent modifications of the primary, all have relation to space, and motion in space, *all are contained under the category of resistance*, or *pressure*, all are learned or included as results of experience, all have both an objective and subjective phase, being at once qualities of matter, and also affections of our senses.

Considered as to the *sources* of resistance, there is, I. That of *Co-attraction*, under the forms of *a*, Gravity, *b*, Cohesion, II. That of Repulsion; III. Inertia; all which are capable of minute subdivision. Thus from cohesion follow the hard and soft, firm and fluid, tough and brittle, rigid and flexible, rough and smooth, etc., etc. From repulsion are derived compressible and incompressible, resilient and irresilient.

Secondary Qualities. — The secondary qualities are, as apprehended by us, not properly attributes of body at all, but only affections of our nervous organism. They belong to bodies only so far as these are furnished with the power of exciting our nervous organism to the specific action thus designated. To this class belong color, sound, flavor, savor tactile sensation, feeling of heat, electricity, etc. Such also are titillation, sneezing, shuddering, and the various sensations, pleasurable or painful, resulting from the action of external stimuli.

These Classes further distinguished. — Of the qualities thus derived, the primary are known immediately in themselves, the secondary only mediately in their effects on us, the secundo-primary both immediately in themselves, and mediately in their effects on us. The primary are qualities of body in relation to body simply, and to our organism

as such; the secundo-primary are qualities of body in relation to our organism, not as body in general, but as body of a particular sort, viz.: propelling, resisting, cohesive; the secondary are qualities of body in relation to our organism as excitable and sentient. The primary may be roundly characterized as mathematical, the secundo-primary as mechanical, the secondary as physiological.

Reasons for retaining the twofold Division. — Such, in brief outline, are the principal points of Hamilton's classification. While following in the main the distinctions here indicated, I have preferred to retain the old division into primary and secondary, as at once more simple, and sufficiently accurate, merely dividing the secondary into two classes, the mechanical (secundo-primary of Hamilton), and physiological. We are thus enabled, not merely to retain a division and nomenclature which have antiquity and authority in their favor, and are well-nigh universally received, but we avoid the almost barbarous terminology of Sir William's classification — while, at the same time, we indicate with sufficient precision the important distinction between the so-called secundo-primary and secondary qualities.

II. Of Different Theories of Perception.

Realists and Idealists. — There are two leading theories, quite distinct from each other, which have widely prevailed, and divided the thinking world, as to the philosophy of perception. The one maintains that in perception we have *direct cognizance* of a real external world. This is the view taken in the preceding pages, and now generally held by psychologists in this country, and to some extent in Europe But for a long period, the prevalent, and in fact, until the time of Reid in Scotland, and Kant in Germany, the almost universally-received opinion was the reverse of this — that in perception, as in any and all other mental acts, the mind is conscious only of its own ideas, cognizant of itself and its own states only, incapable, in fact, of knowing any thing

external to itself. Those who hold the former view are termed *Realists*, the latter *Idealists*.

Further division of the latter. — The latter, however, are of two classes. The *Absolute Idealists* hold that the notion we have of external things is purely subjective, having no external counterpart, no corresponding outward reality. In distinction from this the greater part maintain that while we are cognizant, directly and strictly, of nothing beyond our own minds, nevertheless there is an external reality corresponding to the idea in our minds, and which that idea represents. Hence they have been designated *Representative Idealists*, or, as Sir William Hamilton terms them, Cosmothetic Idealists.

Further Distinction. — Of these latter, again, some hold the idea which we have of an external world to be merely a state or modification of the mind itself; others regard it as a sort of intermediate connecting link between mind and matter. The former may be called egoistic, and the latter non-egoistic.

Summary of Classes. — We have then these three great classes — the *Natural Realists*, the *Absolute Idealists*, and the *Representative Idealists* comprising the Egoistic and Non-Egoistic divisions.

Distinguished Writers of the different Classes. — On the roll of absolute idealism are names of no small distinction: Berkley and Hume, in England, Fichte and Hegel, in Germany, are of the number; while among the representative idealists one finds Descartes, Arnauld, Malebranche, Leibnitz, Locke, in fine, the greater number of philosophic writers from Descartes onward to the time of Reid. Subsequently even we find a writer of no less repute than Dr. Brown assuming, as the basis of his philosophy of perception, the exploded theory of representative idealism, under the egoistic form. Of natural realists since the time of Reid, Sir W. Hamilton is the most distinguished.

Origin of Representative Idealism. — The doctrine of

representative perception doubtless originated in the difficulty of conceiving how a purely spiritual existence, the human mind, can, by any possibility, take cognizance of, or be affected by, a purely material substance, the external world. The soul seated in its presence-chamber, the brain, can cognize nothing beyond and without, for nothing can act except where it is present. It must be, then, said the philosophers, that in order to the mind's perceiving any thing of that which lies beyond and without its own immediate locality, there must come to the mind from that outer world certain little images bearing some resemblance to the things without, and *representing* to the soul that external world. These images — more refined than matter, less spiritual than mind itself, of an intermediate nature between the two — they termed ideas.

Tendency of Representative to Absolute Idealism. — It is easy to see how such a doctrine would lead almost inevitably to *absolute idealism*. If we do not in perception take cognizance directly of matter external, but only of certain images or ideas in our own minds, then how do we know that these images *correctly represent* the external reality, which we have never cognized, and never shall? How do we know, in fact, that there *is* any such external reality? What evidence have we, in a word, of the existence of any thing beyond and without our own minds? This was the actual result to which Berkley and Hume drove the then prevalent philosophy of Europe, as to a legitimate and inevitable result.

Relation of Dr. Reid to this Controversy. — To Dr. Reid belongs the credit of rescuing philosophy from this dangerous extreme, by showing the utter falsity of the ideal theory. He took the ground that the existence of any such representative images in the mind is wholly without proof, nay more, is inconceivable; that while we can conceive of an image of form or figure, we cannot conceive of an image of sound, or of taste or smell. The hypothesis is wholly

without foundation. But even if it were conceivable and established by sufficient evidence, still it would explain nothing as to the manner in which the mind perceives external objects. It relieves no difficulty. If the representative image be itself material, how can the mind take cognizance of it? If not material, how can it represent matter, and how can the mind know that it does represent correctly the external object?

State of the Matter since Reid. — Since the time of Dr. Reid, this theory of representative perception, at least in this non-egoistic form, has been for the most part abandoned, and philosophers have been content to take the ground indicated by consciousness, and the common sense of mankind, that in perception we take direct cognizance of the external object.

Position of Hamilton. — It remained for Sir W. Hamilton to complete the work which Dr. Reid began, by showing that the representative theory, in its finer or egoistic form, as held by Dr. Brown and others, is equally untenable or unsound; that it makes little difference whether we regard the image or idea, which we take to represent the external object, as something distinct from the mind itself, or whether we view it as a mere modification or state of the mind, so long as we make any thing of the sort the direct object of perception instead of the real external thing. Idealism is the result in either case, and philosophical skepticism the goal. In place of any and all such views, Hamilton maintains, with great power and earnestness, the doctrine of natural realism — that in perception we are cognizant immediately and directly of the external object.

As no other writer has so fully elaborated this department of science, it may be of service to present in this connection the chief points of his theory.

Chief Points of Hamilton's Theory of Perception. — All perception is immediate cognition; we perceive only what we apprehend as now and here existent; and hence

what we perceive is either in our own organism, viewed as material, extended, etc., or else is in immediate correlation to it. The organism is, in perception, viewed as not-me; in sensation, as of the me.

What is given in Perception proper. — What we apprehend in perception proper is: 1. The primary qualities of body as pertaining to our own organism; 2. The secundo-primary qualities of bodies in correlation to it. (See Hamilton's division of qualities of bodies, as above.)

Primary Qualities of external Objects, how known. — The primary qualities of things external to our organism we do not perceive immediately, but only infer, from the effects produced on us by them. Neither in perception nor sensation do we apprehend immediately, or in itself, the external cause of our affection or sensation. That is always unknown to consciousness, known only by inference or conjecture.

External Existence, how learned. — The existence of the world without is apprehended not in a perception of the primary qualities of things external, but of the secundo-primary — *i. e.*, in the consciousness that our movements are resisted by something external to our organism. This involves the consciousness of something external, resisting. The two things are conjunctly apprehended.

This presupposes what. — This experience presupposes the notion of space, and motion in space. These are inherent, instinctive native elements of thought, and it is idle to inquire how we come by them. Every perception of sensations *out of*, and distinct from, other sensations gives occasion for conceiving the idea of space. *Outness* involves it.

Points of Difference between this Theory and Reid's. — The system, as thus stated, differs in some respects materially from the doctrine of perception advanced by Dr. Reid, and generally adopted since his time by the English and Scotch philosophers. According to Hamilton, perception is not, as held by Reid and others, the *conception* of an object *suggested* by sensation, but the direct cognition of some-

thing. We do not merely *conceive* of the object as existing, and *believe* it to exist, we *know* it and *perceive* it to exist. Nor does sensation precede, and perception follow, as generally stated, but the two are, in time, conjunct, coëxistent. Nor do we perceive the secondary qualities of bodies, as such, but only *infer* them from our sensations. Neither do we perceive distant objects through a medium, as usually held, but what we perceive is either the organism itself, as affected thus and thus, or what is directly in contact with it, as affecting and resisting it. Extension and externality, again, are not first learned by *touch*, as Reid holds, and most subsequent writers, both English and American, but in other ways; the former, by the perception of the primary qualities of our own organism, as the seat of sensations distinct from other sensations elsewhere localized; the latter, by the resistance which we experience to our own locomotive force. Finally, sensation proper is not, as with Reid and others, an affection purely of the mind, but of mind and body as complex. Its subject is as much one as the other.

INTELLECTUAL FACULTIES.

PART SECOND

THE REPRESENTATIVE POWER.

THE

REPRESENTATIVE POWER

GENERAL OBSERVATIONS.

Nature of this Power — Its various Forms. — It is in the mind's power to conceive or represent to itself an object not at the time present to the senses. This may take place in several forms. There may be the simple reproduction in thought of the absent object of sense. There may be, along with the reproduction or recurrence of the object, the *recognition* of it as a former object of sensation or perception. There may be the reproduction of the object not as it is, or was, when formerly perceived, but with variations, the different elements arranged and combined not according to the actual and original, but according to the mind's own ideals, and at its will. This latter form of conception is what is usually termed imagination — while the general term memory, as ordinarily employed, is made to include the two former. While using the term in this general sense, we may properly distinguish, however, between mental reproduction, and mental recognition, the latter being strictly the office of memory.

All these are but so many forms of the representative power. We may designate them respectively as the *reproductive*, *recognitive*, and *creative* faculties. The mind's activity is essentially the same under each of these forms. The object is not *given* but *thought*, not presented to sense, but *represented* to the mind. The process is reflective rather

than intuitive. It is a matter of *understanding* rather than of *sense* or of *reason*. It is a conception, not a perception or an intuition, and it is a simple conception of the object as it is or is conceived to be, in itself considered, and not in relation to other objects.

CHAPTER I.

MEMORY.

§ I. — Mental Reproduction.

I. Nature of the Process.

General Character. — As now defined, this is that form of mental activity in which the mind's former perceptions and sensations are reproduced in thought. The external objects are no longer present — the original sensations and perceptions have vanished — but by the mind's own power are reproduced to thought, giving, as it were, a representation or image of the original.

Example. — Suppose, for instance, that I have seen Strasburg minster, or the cathedral of Milan. Months, perhaps years pass away. By-and-by, in some other and remote part of the world, something reminds me of that splendid structure; I see again its imposing front, its lofty towers, its airy pinnacles and turrets. The solemn pile rises complete, as by magic, to the mind's eye, and, regardless of time or distance, the faculty of simple conception reproduces the object as it is.

Conceptions of Sound. — In like manner I form a conception, more or less distinct, of sounds once heard. The chanting of the evening service in the Church of the Madeleine at Paris, and the prolonged note of a shepherd's horn among the Alps, are instances of musical sound that frequently recur with startling distinctness to the mind.

The same is to some extent true of the sensations and perceptions derived from the other senses. With more or less vividness the objects of all such sensations and perceptions are capable of being reproduced in conception.

The Conceptions not of Necessity connected with the Recollection of Self as the Percipient. — In these cases there may or may not be a connection of the object, as it lies before our minds, with our own personal history as the former percipients of that object. The time, place, circumstance, of that perception may not be distinctly before us; even the fact that we have ourselves seen, heard, felt, what we now conceive, may not, at the moment, be an object of thought. These are the elements of memory or mental recognition, and are certainly very likely to stand associated in our minds with the conception of the object itself. But not always nor of necessity is it so. There may be simple conception of the object, mental reproduction, where there is, for the time being, no recognition of any thing further. The Strasburg minster, the chanting of the choir, the note of the mountain horn, the snowy peak of Jungfrau, may stand out by themselves before the mind, abstracted from all thought of the time, the place, the circumstances in which they were originally perceived, or even from all thought of the fact that we have at some former time actually perceived these very objects. They may present themselves as pure conceptions.

Conceptions vary in some Respects. — Our conceptions vary in respect to definiteness and clearness. The objects of some of the senses are more readily and also more distinctly conceived than those of others. The sense of sight is peculiar in this respect. A visible object is more easily and more distinctly conceived than a particular sound or taste. The sense of hearing is, perhaps, next to that of sight in this respect; while the sensations of taste and smell are so seldom the objects of distinct conception, that some have even denied the power of conceiving them. Dr. Wayland

maintains this view. That we do form conceptions more or less distinct of the objects both of taste and smell, as, *e.g.* of the taste of a melon, or the smell of an orange, hardly admits of question; while, at the same time, it is doubtless true that we have less occasion to reproduce in thought the objects now referred to than those of sight and hearing, that they are recalled with less facility, and also with less distinctness.

Stewart's Theory. — Dugald Stewart has ingeniously suggested that the reason why a sound or a taste is less readily conceived than an object of sight, may be that the former are single detached sensations, while visible objects are complex, presenting a series of connected points of observation, and our conception of them as a whole is the result of many single conceptions, a result to which the association of ideas largely contributes. We more readily conceive two things in connection than either of them separately. On the same principle a series of sounds in a strain of music is more readily conceived than a single detached note.

Importance of this Power. — The value of this power to the mind is inestimable. Without it, the passing moment, the impression or sensation of the instant, would be the sum total of our intellectual life, of our conscious being. The horizon of our mental vision would extend no further than our immediate present perceptions. The past would be a blank as dark and uncertain even as the future. Conception lights up the otherwise dreary waste of past existence, and reproducing the former scenes and objects, gives us mental possession of all that we have been, as well as of the present moment, and lays at our feet the objects of all former knowledge. The mind thus becomes in a measure independent of sense and the external world. What it has once seen, heard, felt, becomes its permanent acquisition, even when the original object of perception is for ever removed. I may have seen the grand and stately minster, or the snowy Alp but once in all my life, but ever after it dwells

among my conceptions, and in after years, on other continents, and amid far other scenes, that vision of beauty and grandeur passes before me as an angelic vision; that succession of sweet sounds traverses again the silent chambers of the brain, with all the freshness of first reality. It is only a conception now, but who shall estimate the worth of that simple power of conception?

The Talent for Description as affected by this Power.— The following remarks of Mr. Stewart illustrate happily one of the many uses to which this power is subservient:

"A talent for lively description, at least in the case of sensible objects, depends chiefly on the degree in which the describer possesses the power of conception. We may remark, even in common conversation, a striking difference among individuals in this respect. One man, in attempting to convey a notion of any object he has seen, seems to place it before him, and to paint from actual perception; another, although not deficient in a ready elocution, finds himself, in such a situation, confused and embarrassed among a number of particulars imperfectly apprehended, which crowd into his mind without any just order and connection. Nor is it merely to the accuracy of our descriptions that this power is subservient; it contributes, more than any thing else, to render them striking and expressive to others, by guiding us to a selection of such circumstances as are most prominent and characteristic; insomuch that I think it may reasonably be doubted if a person would not write a happier description of an object from the conception than from the perception of it. It has often been remarked, that the perfection of description does not consist in a minute specification of circumstances, but in a judicious selection of them and that the best rule for making the selection is to attend to the particulars that make the deepest impression on our own minds. When the object is actually before us, it is extremely difficult to compare the impressions which different circumstances produce; and the very thought of writing

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a description, would prevent the impressions which would otherwise take place. When we afterward conceive the object, the representation of it we form to ourselves, however lively, is merely an outline, and is made up of those circumstances which really struck us most at the moment, while others of less importance are obliterated."

Conceptions often Complex. — It is to be further remarked respecting the power now under consideration, that the notion, or conception which we form of an object, by means of this faculty, is frequently complex. The particular perceptions and sensations formerly experienced, and now represented, are combined, forming thus a notion of the object as a whole. The figure, magnitude, color, and various other properties, of any object, as, *e. g.*, a table, are objects each of distinct and separate cognition, and as such are mentally reproduced, distinctly, and separately; but when thus reproduced, are combined to form the complete conception of the table, as it lies in my mind. The notion or conception of the object as a whole being thus once formed, any single perception as, *e.g.*, of color, figure, etc., is afterward sufficient to recall and represent the whole.

Often passes for Perception. — It was remarked, in treating of perception, that very much which passes under that name is in reality only conception. I hear, for example, a carriage passing in the street. All that I really perceive is the sound; but that single perception recalls at once the various perceptions that have formerly been associated with it, and so there is at once reproduced in my mind the *conception* of the passing carriage. Our conviction of the existence and reality of the object thus conceived, is hardly inferior to that produced by actual and complete perception.

Correctness of our Conceptions. — In general it may be remarked, that our conceptions are more or less adequate and correct representations of the objects to which they relate, according as they combine the reports of more or

fewer different senses, respecting more or fewer different qualities, and as these reports are more or less clear and distinct.

II. Laws of Mental Reproduction.

Conceptions not uncaused. — It is evident that our conceptions arise not uncaused and at hap-hazard, but according to some law. There is a method about the phenomena of mental reproduction. There is a reason why any particular scene or event of former experience, any perception or sensation, is brought again to mind, when it is, and as it is, rather than some other in its place. A careful observation and study of the laws which regulate in general the succession of thought, will furnish the explanation and true philosophy of mental reproduction.

Principle of Suggestion. — Every thought which passes through the mind is directly or indirectly connected with, and suggested by something which preceded; and that something may be either a sensation, a perception, a conception, or an emotion. The precedence may be either immediate or remote. Some connection there always is between any given thought or feeling at any moment before the mind, and some preceding thought or feeling, which gives rise to, occasions, suggests, the latter. These suggestions follow certain general rules or laws, which are usually called the *laws of association.* These laws, so called, are only the different circumstances under which the suggestions take place, and are termed laws only to indicate the regularity and uniformity with which, under given circumstances given thoughts and feelings are awakened in the mind.

This the Basis of mental Reproduction. — It is to this general principle of suggestion or association that we are indebted for all mental reproduction. It is only as one idea or feeling is suggested by some other which has gone before, and with which it is in some way, and for some reason, associated in our minds, that any former thought or sense

tion is recalled, that any object which we have perceived or any scene through which we have passed, is mentally reproduced. It is thus that the sight of an object brings to mind occurrences connected with it in our history, that the name recalls the thing, that the words of a language bring to mind the ideas which they denote, or the characters on the musical staff, the tones which they represent.

Not a distinct Faculty. — It has been customary to speak of association of ideas as a distinct faculty of the mind. It is not properly so ranked. It is a law of the mind rather than a faculty of it — a rule or method of its action in certain cases; and the particular power of mind to which this rule applies is that form of simple conception which we term mental reproduction.

The Term Suggestion preferred by Brown. — In place of the term association, Dr. Brown would prefer the term suggestion as more correct. To speak of the association of ideas implies that they have previously coëxisted in the mind, and that the one now recalls the other in consequence of that previous coëxistence. That this is often the case is doubtless true, but it is also true that in many cases one idea suggests another with which it has not previously been associated in our minds. It is not necessary to the suggestion that there should be any prior association. An object seen *for the first time* suggests many relative conceptions. The sight of a giant suggests the idea of a friend of diminutive stature, not because the two ideas have previously been associated, or the two objects have coëxisted, either in perception or conception, but because it is a law of the mind that one conception shall suggest another, either as similar, or as opposite, or in some other way related to it. This may be as truly a law of the mind, independent of association, as that light falling on the retina shall produce vision. It may seem mysterious that this should be so. Is it not equally mysterious that ideas which have formerly coëxisted should recall each other? The real mystery is

the recurrence in any mode, and from any source, of the idea without the recurrence of the external producing cause. For these reasons, Dr. Brown prefers the term *suggestion* to *association*.

The Term Conception preferable to either. — As regards the activity of *the mind itself*, in the process of mental reproduction, the term conception seems to me to express more nearly the exact state of the case than either association or suggestion. An idea is *suggested to* the mind by some external object; the mind *conceives* the idea thus suggested. The flute which I perceive lying on the table in the room of my friend suggests at once to my mind the idea of that friend. The action of the mind in this case is simply an act of conception. All that the flute does — all that we mean when we say the flute suggests the idea of the friend — is simply to place the mind in such a state that the conception follows. Whether we speak then of the laws of *association*, laws of *suggestion*, or laws of mental *conception*, is immaterial, provided we bear in mind the real nature of the process as now defined.

Question stated. — But what are the laws of association, or suggestion, so-called — in other words, of mental conception? Under what circumstances is a given conception awakened in the mind by some preceding conception or perception? This is an important subject of inquiry, and one which has not escaped the attention of philosophers.

Primary Laws. — It has been usual to enumerate as primary laws of suggestion, the following: *resemblance, contrast, contiguity in time or place;* to which has sometimes been added *cause and effect*. There can be little doubt that these are important laws of suggestion; that a given object of thought is likely to suggest to the mind that which is like itself, that which is unlike, that which is connected with itself in time and place, that of which it is the cause or the effect. Whether these principles are exhaustive, and whether they may not be reduced to some one general principle comprehensive of them all, may admit of question.

Law of Similars. — To begin with *resemblance*. It seems to be a law of our nature, that like shall remind us of like. The mountain, the forest, the river, that I see in my morning walk to-day, remind me of similar objects that were familiar to my childhood. Nor is it necessary that the resemblance should be complete. A single point of similarity is sufficient to awaken the conception of objects the most remote, and, in other respects, dissimilar. I pass in the street a person with blue eyes, or dark hair, or having some peculiarity of expression in the countenance, and am at once reminded of a very different person whom I knew years ago, or whom I met perhaps in another land; yet the two may be as unlike, except in the one point which attracts my attention, as any two persons in the world. An article of dress peculiar to the Elizabethan age, or to the court of Louis XIV. reminds us of the lordly dames and courtiers, or gallant warriors of those periods. A single feature in the landscape, perhaps a single tree, or projecting crag, on the mountain side, brings before us the picture of a scene widely different in most respects, but presenting only this one point of resemblance to the scene before us.

Not confined to Objects of Sight. — Nor is it the objects of sight alone that are suggestive of similar objects. The other senses follow the same law. Sounds suggest similar sounds; tastes, similar tastes; and along with the sounds, tastes, etc., thus recalled, are awakened conceptions of many things having no resemblance to the suggesting object, but associated in our previous perceptions with the object suggested. A certain succession of musical sounds, for example, recalls to the Swiss his native valley, and the mountains that shut it in, and brings back to his mind the scenes of his childhood, and the peculiar customs of his father-land, where he heard in former years that simple melody. With what a train of associations is a single name often fraught! what power of magic lies often in a single word!

Illustrations of other Laws. — Of the other principles of

suggestion or association which have been named, it is not necessary to speak minutely. Their operation is obvious and indisputable. Illustrations will occur to every one. The palace of the king reminds us by contrast of the hovel of the peasant. The splendor of wealth and luxury suggests the wretchedness of poverty and want. The giant reminds us of the dwarf, and the dwarf of the giant. On the principle of contiguity in time and place, the sight of an object reminds us of events that have occurred in connection with it; the name Napoleon suggests Waterloo, and Wellington, and the marshals of the empire; St. Peter's and the Vatican suggest Raphael and his Transfiguration; a book, casually lying on my table, reminds me of the volume that formerly stood by its side on the shelf, and so carries me back to other scenes, and other days.

In like manner, if it be not indeed the operation of the same principle, cause suggests the effect, and effect its cause. The wound reminds me of the instrument, and the instrument awakens the unpleasant conception of the wound which it once inflicted.

Why one Conception rather than another. — Inasmuch as any one conception may awaken in the mind a great variety of other conceptions — since a picture, for example, may recall the person whose likeness it is, or the artist who painted it, or the friend who possesses it, or the time and place in which it was sketched, or the room in which it formerly hung, or any circumstance or event connected with it — the question arises, why, in any given instance, is *one* of these conceptions awakened in the mind rather than any *other* in its stead? It is evident that the action of the associating principle is not uniform, sometimes one conception being awakened, sometimes another.

Secondary Laws. — In answer to this, Dr. Brown has shown that the action of these general and primary laws of suggestion, now named, is modified by a variety of circumstances, which may be called *secondary* laws of suggestion,

and which will account for the variety in question. These modifying circumstances are: 1. Continuance of attention. 2. Vividness of feeling. 3. Frequency of repetition. 4. Lapse of time. 5. Exclusiveness of association. 6. Original constitutional differences. 7. State of mind at the time. 8. State of body. 9. Professional habits. Any one of these circumstances may so modify the action of the primary laws of suggestion, that one conception shall be awakened in the mind rather than another, by that which has preceded.

Correctness of this View. — There can be little doubt as to the correctness of this view. The attention, for example, which a given object or event excites at the time of its occurrence, and the strength and liveliness of feeling which it awakened in us, have very much to do, as every one knows, with our subsequent remembrance of that object or event. So also has the frequency with which the train of thought has been repeated — a fact illustrated in the process of committing to memory.

The more frequently two things come together before the mind, the more likely will it be, when one is again presented, to think of the other. In the process of learning a thing by rote, we repeat the lines over and over, until they become so associated, and linked together, that the suggestion of one recalls the whole. Frequently, however, we find it difficult to pass from one sentence to another, or from one stanza or paragraph to another, while we find no difficulty in completing the sentence or paragraph once commenced. The reason is, we have repeated each sentence or stanza by itself in the process of learning, and have not connected one with another. The last words of one sentence, and the first words of another, have not been repeatedly conjoined in the mind — have not frequently *coëxisted.*

Sometimes, however, a more than usual vividness of conception will make up for the want of this frequent coexistence. When, for any reason, as excited feeling, or extraordinary interest in what we perceive, we grasp with

peculiar clearness and force the idea presented, this vividness of mental conception will, of itself, insure the remembrance of the object contemplated. A man, on trial for his life, will be likely to recollect the faces and tones of each of the different witnesses on the stand, and the different judges and advocates, even if he never sees them afterward.

We all know, also, that the lapse of time weakens the impression of any object or event upon the mind, and so lessens the probability of its recurrence to the thoughts. We more readily recall places and objects seen in a recent tour, than those seen a year ago. The exclusiveness of the connection is also an important circumstance. An air of music, which I have heard played or sung only on one occasion, and by one musician only, is much more likely, when heard again, to bring to mind the former player, than if it had also been associated with other occasions and other performers. Much depends, moreover, on native differences of temperament, on the habitual joyousness, or habitual gloom, which may pervade the spirits, on the lights and shadows which passing events may cast, in quick succession, on the mind, as good or bad news, the arrival of a friend, the failure of an enterprise, a slight derangement of any of the bodily functions, or even the state of the atmosphere. All these circumstances have much to do with the question, whether one conception or another shall be awakened in the mind by any object presented to its thoughts.

These Laws distinguished as Objective and Subjective.— It will be observed that the primary laws of suggestion, so called, are such as arise from the relations which our thoughts sustain to each other, while the secondary are such as arise from the relations which they sustain to ourselves, the thinking subjects. Hence the former have been called *objective*, the latter, *subjective* laws.

Possibility of reducing the primary Laws to one comprehensive Principle.—I have already suggested that possibly the primary laws admit of being reduced to some one

general and comprehensive principle. This is a point deserving attention. Were we required to name some one principle which should comprehend these several specific laws of association, it would be that of the prior existence in the mind of the suggesting and the suggested idea. The two conceptions have, for some reason, and at some time, stood together before the mind, and hence the one recalls the other. *It seems to be a general law of thought, that whatever has been perceived or conceived in connection with some other object of perception or thought, is afterward suggestive of that other.* The relation may be that of part to whole, of resemblance, of contiguity, or contrast, or cause; it may be a natural or an artificial relation; whatever it is that serves as the connecting link between one thought and another, as they come before the mind at first, that will also serve as the ground of subsequent connection, when either of these thoughts shall present itself again to the mind. The one will suggest the other.

Application of this Principle to the several Laws of Suggestion. — Why is it, for example, that things contiguous in time and place suggest each other? In consequence of that contiguity they were viewed by the mind in connection with each other; as, *e. g.*, the handle, and the door to which it belongs, the book, and its neighbor on the shelf. It is because Napoleon and his marshals, Wellington and Waterloo, have been presented together to the thoughts, that one now recalls the other. For the same reason the light hair and blue eyes of the person passing in the street recall the friend of former years; that peculiarity of hair and of eyes has been, in my mind, previously connected with the conception of my friend. So also a part suggests the whole with which it has been ordinarily connected, as, for example, the crystal and the watch.

Further Application of the same Principle. — On the same principle cause and effect are naturally suggestive. We have been accustomed to observe the elision of a spark

in connection with the forcible collision of flint and steel and whenever we have observed the application of fire to gunpowder, certain consequences have uniformly attracted our attention; hence the one of these things awakens immediately in our minds the conception of the other, with which it has previously coëxisted. For the same reason the instrument suggests the idea of the wound, and the wound of the instrument. The sight of a rose, and the sensation of fragrance, have usually coëxisted; hence either recalls the other.

The connection in this case is natural. Let us suppose a case in which it shall be arbitrary, or artificial. Suppose I happen to hold a rose in my hand, at the same moment a certain unusual noise is heard in the street, or at the moment when an eclipse of the sun becomes visible; on seeing the rose the next day I am instantly reminded of the noise, or of the eclipse, that was connected with it in my previous perception.

Application to the Law of Opposites. — On the same principle opposites also suggest each other. They sustain a certain relation to each other in our thoughts, and are in a sense necessary to each other in thought, as, *e. g.*, white and black, crooked and straight, tall and short; which are *relative* ideas, neither of which is complete by itself without the other; the one the complement of the other; each, so to speak, the extreme term of a comparison. As such they stand together before the mind, in its ordinary perceptions, and hence the one almost of necessity recalls the other.

The same Principle suggested by Dr. Brown. — The possibility of reducing the laws of association to one common principle, as now attempted, namely that of prior coëxistence in the mind, has not altogether escaped the notice of philosophers. Dr. Brown, in more than one passage, advances the idea, that on a sufficiently minute analysis "all suggestion may be found to depend on prior coëxistence, or, at least, on such immediate proximity, as is itself, very pro-

bably, a modification of coëxistence." In order to this nice reduction, however, he adds, we must take into account "the influence of emotions, and other feelings that are very different from ideas; as when an analogous object suggests an analogous object by the influence of an emotion or sentiment, which each separately may have produced before, and which is therefore common to both." As illustrative of this, he refers, among others, to cases of remote resemblance; as when, "for example, the whiteness of untrodden snow brings to our mind the innocence of an unpolluted heart; or a fine morning of spring, the cheerful freshness of youth." In such cases, he says, "though there may never have been in the mind any proximity of the very images compared, there may have been a proximity of each to an emotion of some sort, which, as common to both, might render each capable, indirectly, of suggesting the other. The same principle he applies to suggestion by contrast, as when the sight of a person with a remarkably long nose brings to mind some one whom we have seen with a nose as remarkable for brevity; the common feeling in the two cases being that of surprise or wonder at the peculiarity of this feature of the countenance.

Theory of Mahan. — Mahan, in his Intellectual Philosophy, carries out the suggestion of Dr. Brown, and makes the emotion awakened in common by two or more objects, the sole law, or ground of association. One object recalls another only by means of the feeling or state of mind common to both.

This View questionable. — That this is the philosophy of the suggesting principle in those cases in which two object have not previously coëxisted in the mind — that is, in cases of suggestion, and not of *association* properly — I am disposed to admit, but that it is the philosophy of *association*, strictly speaking, that it is the reason why objects which have been viewed together by the mind should afterward recall each other, is to be questioned. It seems to be

an established law of mental action that objects once viewed in connection by the mind, afterward retain that connection. This is a grand and simple law of thought. I doubt whether any explanation can make it more simple, whether any thing is gained by calling in the influence of emotion to account for it. The emotion may, or may not, be the cause why objects, once coëxistent in the mind, recall each other. It is enough that the simple law of previous coëxistence, as now stated, covers the whole ground, and accounts for all the phenomena of mental association.

The same Rule given by Aristotle. — Long before the days of Brown and his successors, this same law had suggested itself to one of the closest thinkers, and most acute observers of mental phenomena, whom the world has ever seen, as a principle comprehensive of all the specific laws of association. *Aristotle* — as quoted by Hamilton — expresses the rule in the following terms: *Thoughts, which have at any time, recent or remote, stood to each other in the relation of coëxistence, or immediate consecution, do, when severally reproduced, tend to reproduce each other.* Under this general law he includes the specific ones of similars, contraries and coädjacents, as comprehending all the possible relations of things to each other.

Further Question. — View of Rosenkranz. —It may still be questioned whether the specific laws of association, as usually given, viz., resemblance, contrast, contiguity, and cause, are a complete and exhaustive list. Are there not relations of things to each other, and so relations of thought, which do not fall under any of the categories now named? A distinguished psychologist of the Hegelian school, Rosenkranz, denies even that there are any laws of association. Law is found, he says, where the manifoldness still evinces unity, to which the manifold and accidental are subject. But association is not subject to any such unity. It is a free process. There are indeed certain limitations or categories of thought, but these so-called laws of association are not to

be confounded with those categories; they are not exhaustive of them. Why not also introduce the law by which we pass from quality to quantity, being to appearance, the universal to the particular, the end to the means, etc., etc.? In short, all metaphysical and logical categories lay claim to be included in the list of such laws. No one can calculate the possible connections of one conception with another. Each is, for us, the middle point of a universe from which we can go forth on all sides. What diverse trains of thought, for example, may the Strasburg minster awaken in my mind: the material of which it is built, the architect, the middle ages, the gothic style, etc., etc. There is, in a word, no law of association.

Objections to this View. — Such, in substance, is the view maintained by this able writer. We cannot altogether coincide with it. That the specific laws of Aristotle, Hume, and Brown, are not exhaustive, may very likely be true; that there is no law, no unity to which this manifoldness of conception is subject, is yet to be shown. Take the very case supposed. The gothic minster of Strasburg reminds me of the gothic style of architecture. What is that but an instance under the law of similarity? It reminds me of the middle ages. What is that but the operation of the law of contiguity in time? It brings to mind the architect. What is that but the relation of cause to effect? Or, if I think of the material of which the building is composed, the marble of this minster reminding me of the class, marble, does not that again fall under the relation of a part to the whole, which is comprehended under the general law of co-adjacence, or contiguity in space? So quality and quantity matter and form, being and appearance, as parts of a comprehensive whole, recall each other. The instances given, then, so far from proving that there is no law of association actually fall under the specific laws enumerated.

The Law of Contiguity includes what. — It is contended that this gives a wider extension to the law of contiguity in

time and space than properly belongs to it. I reply, not wider than is intended by those who make use of this expression. Aristotle, the earliest writer who attempts any classification of the laws of suggestion, distinctly includes under the law of *coadjacence* whatever stand as parts of the same whole, as, *e. g.*, parts of the same building, traits of the same character, species of the same genus, the sign and the thing signified, different wholes of the same part, correlate terms, as the abstract and concrete, etc., etc.

Reference to the subjective Laws. — If it still is asked why does the minster of Strasburg, or any given object, suggest one of these several conceptions, and not some other in its place? the reason for this must doubtless be sought in the state of the mind at the time; in other words, in those subjective or secondary laws of suggestion, of which we have already spoken, as given by Brown and others. Aristotle has more concisely answered the question in the important rule which he adds as supplementary of his general law; viz., that, of two thoughts, one tends to suggest the other, in proportion, 1. To its comparative importance; 2. Its comparative interest. For the first reason, the foot is more likely to suggest the head than the head the foot. For the second reason, the dog is more likely to suggest the master than the master the dog.

§ II. — Mental Recognition, as Distinguished from Mental Reproduction.

I. General Character of this Process.

The Faculty as thus far considered. — Thus far we have considered the faculty of mental representation only under one of its forms, viz., as *reproductive*. By the operation of this power, the intuitions of sense are replaced before the mind, in the absence of the original objects; images, so to speak, of the former objects of perception are brought out from the dark back-ground of the past, and thrown in relief

upon the mental canvas. Picture after picture thus comes up, and passes away. The mind has the power of thus reproducing for itself, according to laws of suggestion already considered, the objects of its former perception. This it is constantly doing. No small part of our thinking is the simple reproduction of what has been already, in some form, before the mind.

An additional Element. — The intuitions of sense, thus replaced in the absence of the external objects, present themselves to the mind as mere conceptions, involving no reference to ourselves as the perceiving subject, nor to the time, place, and circumstances of the original perception. But suppose now this latter element to be superadded to the former; that along with the conception or recalling of the object, there is also the conception of ourselves as perceiving, and of the circumstances under which it was perceived; in a word, the recalling of the *subjective* along with the *objective* element of the original perception, and we have now that form of mental representation which we term *recognitive*, or mental recognition.

The two Forms compared and distinguished. — The two taken together, the reproduction, and the recognition, constitute what is ordinarily called memory, which involves, when closely considered, not only the reproduction, in thought, of the former object of perception, but also the consciousness of having ourselves perceived the same. The conception is given as before, but it is no longer mere conception in the abstract, standing by itself; it is connected now by links of time, place, and circumstance, with our own personal history. It is this *subjective* element that constitutes the essential characteristic of memory proper, or mental recognition, as distinguished from mere conception, or mental reproduction.

Specification of Time and Place. — It is not necessary that the *specific time* and *place* when and where we previously perceived the object, or received the impression,

should be recalled along with the object or impression; this may or may not be. More frequently, perhaps, these do recur to the mind, and the object itself is recalled or suggested by means of these specific momenta; but this is not essential to the act of memory. It is enough that we recognize the representation or conception, now before the mind, as, in general, an object of former cognition, a previous possession of the mind, and not a new acquisition.

Not of necessity voluntary. — Nor is it necessary to the fact of memory, that this recurrence and recognition of former perceptions and sensations, as objects of thought, should be the result of special volition on our part. It may be quite involuntary. It may take place unbidden and unsought, the result of casual suggestion.

Distinction of Terms. — Memory is usually distinguished from *remembrance*, and also from *recollection*. Memory is, more properly, the power or faculty, remembrance the exercise of that power in respect to particular objects and events. When this exercise is voluntary — when we set ourselves to recall what has nearly or quite escaped us, to *re-collect*, as it were, the scattered materials of our former consciousness — we designate this voluntary process by the term *recollection*. We recollect only what is at the moment out of mind, and what we *wish* to recall.

Possibility of recalling. — But here the question arises how it is possible, by a voluntary effort, to recall what is once gone from the mind. Does not the very fact of a volition imply that we have already in mind the thing willed and wished for? How else could we will to recall it? This is a philosophical puzzle with which any one, who chooses, may amuse himself. I have forgotten, for instance, the name of a person: I seek to recall it; to recall what? you may ask. That name. *What* name? Now I do not know what name; if I did, I should have no occasion to recall it. And yet, in another sense, I do know what it is that I have forgotten. I know that it is a name, and I know

whose name it is; the name, viz., of this particular person. And this is all I need to know in order to have a distinct, definite object of volition before my mind.

The Mode of Operation. — The process through which the mind passes in such a case, is, to dwell upon some circumstances not forgotten, that are intimately connected with the missing idea, and through these, as so many connecting links, to pass over, if possible, to the thing sought. I cannot, for example, recall the name, but I remember the names of other persons of the same family, class, or profession, or I remember that it begins with the letter B, and then think over all the names I know that begin with that letter; and, in this way, seek to recall, by association, the name that has escaped.

Memory not an immediate Knowledge. — It has been held by some that memory gives us an *immediate* knowledge of the past. This is the view of Dr. Reid. If, by immediate knowledge, we mean knowledge of a thing as existing, and as it is in itself — nothing intervening between it as a present reality, and our direct cognizance of it — then not in this sense is memory an immediate knowledge; for a past event is no longer existent, and cannot be known as such, or as it is in itself; it no longer *is*, but only *was*. Hence an immediate knowledge of it, is, as Sir William Hamilton affirms, a contradiction. Still, we may know the past *as it was*, not less really and positively than we know the present as it is. I as really know that I sat at this table yesterday as I know that I sit here now. I am conscious of being here now. I was conscious of being here then. That consciousness is not to be impeached in either case. If the senses deceived me yesterday, they may deceive me to-day. If consciousness testified falsely then, it may now. But if I was indeed here yesterday, and if I knew then that I was here, and that knowledge was certain and positive, then I know *now* that I was here yesterday, for memory recognizes what would otherwise be the mere conception of to-day, as identical

with the positive knowledge of yesterday. Memory may possibly be mistaken as to the so-called positive knowledge of yesterday; and so sense may be mistaken as to the so-called positive knowledge of the present moment.

Belief attending Memory. — The remarks of Dr. Reid on this point are worthy of note. "Memory is always accompanied with the belief of that which we remember, as perception is accompanied with the belief of that which we perceive, and consciousness with the belief of that whereof we are conscious. Perhaps in infancy, or in disorder of mind, things remembered may be confounded with those which are merely imagined; but in mature years, and in a sound state of mind, every man feels that he must believe what he distinctly remembers, though he can give no other reason for his belief, but that he remembers the thing distinctly; whereas, when he merely imagines a thing ever so distinctly he has no belief of it upon that account.

This belief, which we have from distinct memory, we account real knowledge, no less certain than if it was grounded on demonstration; no man, in his wits, calls it in question, or will hear any argument against it. The testimony of witnesses in causes of life and death depends upon it, and all the knowledge of mankind of past events is built on this foundation. There are cases in which a man's memory is less distinct and determinate, and where he is ready to allow that it may have failed him; but this does not in the least weaken its credit, when it is perfectly distinct."

Importance of this Faculty. — The importance of memory as a power of the mind, is shown by the simple fact, that, but for it, there could be no consciousness of *continued existence*, none of *personal identity*, for memory is our only voucher for the fact that we existed at all at any previous moment. Without this faculty, each separate instant of life would be a new existence, isolated, disconnected with aught before or after; nay, there would, in that case, scarcely be any consciousness of even the present existence,

for we are conscious only as we are *cognizant of change*, says Hamilton, and there is involved in it the idea of the *latest past* along with the present. Memory, then, is essential to all intelligent mental action, whether intellectual, sensational, or voluntary. The ancients seem to have been aware of this, when they gave it the name μνημη (from μνημος, μναομαι), appellations of the *mind itself*, as being, in fact, the chief characteristic faculty of the mind.

II. What is implied in an Act of Memory.

Several Conditions. — Every act of memory involves these several conditions: 1. Present existence. 2. Past existence. 3. Mental activity at some moment of that past existence. 4. The recurrence to the mind of something thus thought, perceived, or felt. 5. Its recognition as a past or former thought or impression, and that our own. These last, the recurrence and the recognition, are strictly the essential elements of memory, yet the others are implied in it. In order to my remembering, for example, an occurrence of yesterday, I must exist at the present time, else I cannot remember at the present time; I must have existed yesterday, else there can be no memory of yesterday; my mind must have been active then, else there will be nothing to remember; the thoughts, perceptions, sensations, then occupying the mind, must now recur, else it is the same as if they had never been; they must recur, not as new thoughts and impressions, but as old ones, else I no longer remember, but only conceive or perceive.

III. Qualities of Memory.

Distinctions of Stewart and Wayland. — It has been customary to designate certain qualities as essential to a good memory. Susceptibility, retentiveness, and readiness, are thus distinguished by Mr. Stewart; the first denoting the facility with which the mind acquires; the second, the permanence with which it retains; and the third, the quick-

ness with which it recalls and applies its original acquisitions. And these qualities are rarely united, he adds, in the same person. The memory which is susceptible and ready, is not commonly very retentive. Dr. Wayland makes the same distinction. Some men, he says, retain their knowledge more perfectly than they recall it. Others have their knowledge always at command. Some men acquire with great rapidity, but soon forget what they have learned. Others acquire with difficulty, but retain tenaciously.

Objections to this View. — Although supported by such authority, it admits of question whether this distinction is strictly valid. Facility of acquisition, the readiness with which the mind perceives truth, is hardly to be reckoned as an attribute of memory. It is a quality of mind, a quality possessed in diverse degrees by different persons, doubtless, but not a quality of mind in its distinctive capacity and office of *remembering*. It is no part, psychologically considered, of the function of *mental reproduction*. It is essential, indeed, to the act of memory that there should be something to remember, but the acquisition of the thing remembered, and the remembering, are two distinct and different mental acts; nor is it of any consequence to the mind, in remembering, whether the original acquisition was made with more or less facility. Indeed, so far as that bears upon the case at all, facility of acquisition, as even these writers admit, is likely to be rather a hindrance than a help to subsequent remembrance, since what is most readily acquired is not most readily recalled.

The Mind retentive in what Sense. — Nor is it altogether proper to speak of retentiveness as a *quality* of memory — a quality which may pertain to it in a greater or less degree in different cases. The truth is, *all* memory is retentive, or, more properly, retentiveness *is itself* memory. It is a quality of mind; a power or faculty possessed in different degrees by different persons; and the power which the mind

possesses of retaining thus, wholly, or in part, what passes before it, is the faculty of memory. But in what sense does the mind retain anything which has once occupied its thoughts? Not, of course, in the sense in which a hook retains the hat and coat that are hung upon it, ready to be taken down when wanted. We are not to conceive of the mind as a convenient receptacle, in which may be stowed away all manner of old thoughts, sensations, impressions, as old clothes are put by in a press, or guns in an armory. Not in any such sense is the mind retentive. What we mean, when we say the mind is retentive, is simply this, that it is in its power to repossess itself of what has once passed before it, to regain a thought or impression it has once had. And this is done by the operation of those laws of suggestion already considered. That, and that only is *retained* by the mind, which under the appropriate circumstances is by the principle of suggestion *recalled* to the mind. We are not to distinguish, then, the power to retain and the power to recall, as two separate things; nor, for the same reason, can we conceive of a memory that is other than retentive, or that is retentive but not ready. So far as these expressions denote any real distinction, it amounts simply to this, that some minds are more retentive than others; in other words, more susceptible of the influence of the suggesting principle in recalling ideas that have once been before them. Such a difference undoubtedly exists. Some remember much more readily and extensively than others. This may be owing, partly, to some difference of mental constitution and endowment; but more frequently to differences of mental habit and culture. It is not necessary to refer again to the laws of mental reproduction which have been already discussed. It is sufficient to say, that *the more clearly any fact or truth is originally apprehended, and the more deeply it interests the mind*, the more readily will it subsequently recur, and the longer will it be retained

IV. Memory in Relation to Intellectual Strength

The common Opinion. — The question has arisen, how far the power of memory may be regarded as a test of intellectual ability. The opinion has been somewhat prevalent, that a more than usual development of this faculty is likely to be attended with a corresponding deficiency in some other mental power, and especially that it is incompatible with a sound judgment. To this opinion I cannot subscribe. Doubtless it is true that many persons, deficient in the power of accurate discrimination, have possessed wonderful power of memory. The mind, in such cases, undisciplined, uncultivated, with little inventive and self-moving power, lies passive and open to the influence of every chance suggestion from without, as the lyre is put in vibration by the stray winds that sweep across its strings. Facts and incidents of no value, without number, and without order, are thrown into relief upon the confused background of the past, as sea-weed, sand, and shells are heaped by the unmeaning waves upon the shore.

But if a weak mind may possess a good memory, it is equally true, that a strong and well disciplined mind is seldom deficient in it. Men of most active and commanding intellect have been men also of tenacious and accurate memory. Napoleon was a remarkable instance of this. So also was the philosopher Leibnitz. While, then, we cannot regard the memory as a test of intellectual capacity, neither can it be considered incompatible with, or unfavorable to, mental strength. On the contrary, we can hardly look for any considerable degree of mental vigor and power where this faculty is essentially deficient.

Memory as affected by the Art of Printing. — It is remarked by Miss Edgeworth, and the remark is noticed with approval by Dugald Stewart, that the invention of printing, by placing books within the reach of all classes of people, has lowered the value of those extraordinary powers of

memory which some of the learned were accustomed to display in former times. A man who had read, and who could repeat, a few manuscripts, was then not merely a remarkable, but a very useful man. It is quite otherwise now. There is no occasion now for any such exercise of memory. Hence instances of extraordinary memory are of unfrequent occurrence.

Failure of Memory accompanies failure of mental Power. — A decline of mental vigor, whether produced by disease or age, is usually attended with loss of memory to some extent. The first symptoms of this failure are usually forgetfulness of proper names and dates, and sometimes of words in general. A stroke of palsy frequently produces this result, and in such cases the name sometimes suggests the object, while the object no longer recalls the name. This is probably owing to the fact that the sign, being of less consequence than the thing signified, and making less impression on the mind, is more readily forgotten; hence the name, if suggested, recalls the thing, while, at the same time, the thing may not recall the name. In general, we pass more readily from the sign to the thing signified, than the reverse, and for the reason now given. Mr. Stewart remarks, that this loss of proper names incident to old men, is chiefly observable in men of science, or those much occupied with important affairs — a fact resulting, he thinks, partly from their habits of general thought, and partly from their want of constant practice in that trivial conversation which is every moment recalling particulars to the mind.

The Memory of the Aged. — In the principles which have been advanced, we find an explanation, I think, of some facts respecting memory, which every one has noticed, but of which the philosophy may not be at first sight apparent. Why is it that aged people forget? that, as we grow old, while perhaps other powers of the mind are still vigorous, the memory begins to lose its tenacity? Not, I suspect, from any special change which the brain undergoes, for why should such

changes affect *this* faculty more than any other? I should seek the explanation in a failure of one or other of the conditions already mentioned as essential to a good memory; either in the want of a sufficiently frequent coëxistence of associated ideas, or else in the want of a sufficiently vivid conception of them when presented; or, more likely, in both. And so the facts would indicate. Age involves usually the gradual failure and decay of the powers of perception; the ear fails to report what is said, the eye what is passing in space; and as memory is dependent on prior perception, of course a diminished activity of the one brings about a diminished activity of the other. In proportion as this ensues, the mind's interest in passing events is likely to fail, for what is no longer clearly apprehended no longer awakens the same interest and attention as formerly. This directly affects the vividness of conception, and indirectly also reacts upon the frequency of coëxistence, for what we do not clearly apprehend, nor feel much interest in, will not be likely often to recur to mind, nor shall we dwell upon it when presented. There is thus brought about, by the mutual action and reaction of the causes now specified, a failure more or less complete of the essential conditions of a retentive memory.

The old man dwells accordingly much in the *past*. His life is behind him, and not in advance. He is unobservant of passing events, because he neither clearly apprehends them, now that his connection with the outer world is in a measure interrupted by the decay of sense, nor does he much care about them, for the same reason. His attention and interest, withdrawn in a manner from these, revert to the past. Those things he remembers, the sports and companions of his youth, and the stirring events of his best and most active years, for those things *have* been frequently associated in his mind, linked with each other, and with all the past of his life, and they *have* deeply interested him Hence they are remembered while yesterday is forgotten.

Varieties of Memory. — Why is it, you ask, that memory seems to select for itself now one and now another field of operation, one man remembering dates, another events or facts in history, another words or pages of a book, while in each case the memory of other things, of every thing that lies beyond or without the favorite range of topics, is defective? Manifestly for much the same reason already given. The mind has its favorite subjects of investigation and thought; to these it frequently recurs, and dwells on them with interest; there is, consequently, frequency of coexistence, and vividness of conception — the very conditions of retentiveness — while, at the same time, the mind being preoccupied with the given subjects, and the attention and interest withdrawn from other things, the memory of other things is proportionably deficient. We remember, in other words, just those things best, in which we are most interested, and with which we have most to do.

This explains why we forget names so readily. We have more *to do with*, and are more interested in, *persons*, than their names; the latter we have occasion to think of much less often than the former. The *sign* occurs less frequently than the *thing signified.*

V. Cultivation of Memory.

The principles already advanced furnish a clue to the proper and successful cultivation of the memory. Like all other powers, this may be cultivated, and to a wonderful degree; and, like all other powers, it gains strength by *use*, by exercise. The first and chief direction, then, if you would cultivate and strengthen this faculty of the mind, is, *exercise* it; train it to do its work — to do it quickly, easily, accurately, and well — as you train yourself to handle the keys of an instrument, or to add up a column of figures with promptness and accuracy.

To be more specific. — As regards any particular thing which you wish to remember: 1. Grasp it fully, clearly, defi-

itely in the mind; be sure you have it exactly — *it*, and not something like it or something about it. 2. Connect it with other things that are known; suffer it to link itself with other ideas and impressions already in the mind, that you may have something to recall it by. 3. Frequently revert to it, until you are sure that it has become a permanent possession, and one which you can at any time recall by any one of numerous connecting links. In this way you secure the two conditions already specified as essential, viz., frequency of coëxistence, and vividness of conception.

Systems of artificial Memory. — A thing is recalled by the suggestion of any *coëxisting* thought or feeling. Observing this, ingenious men have availed themselves of the principle of association to construct various mechanical or artificial systems of memory, usually termed *mnemonics*. The principle of the construction is this: should you see an elm or an oak-tree, or hear a particular tune whistled, at the same time that you were going through a demonstration in Euclid, you would be likely to think of the tree or the tune whenever next you had occasion to repeat that demonstration. The sight of the diagram would recall the associated object. They *stand together* in your mind afterward. This we have already found to be the groundwork and chief element of all association of ideas and feelings, viz., *prior coexistence* in the mind. Suppose, now, you wish to fix in the mind the list of English kings. Make out a corresponding list of simple figures, or images of objects, giving each its invariable place in relation to the series: No. 1. a pump; No. 2. a goose, etc., till you reach a sufficient number, say a hundred. These are committed to memory, fixed indelibly in the mind. You then associate with those figures your English kings; Charles I. stands by the pump; Charles II pursues the goose; James hugs the bear, and so on. These things thus once firmly linked together, remain afterward associated, and the figure serves at once to recall the associate monarch and to fix his place in the series. The

same series of figures, of course, will serve for any number of different series of events, personages, etc., which are to be remembered.

Utility questioned. — It may be seriously questioned, I think, whether such systems are of real value; whether they do not really weaken the memory and throw it into disuse, by departing from the ordinary laws and methods of suggestion, and substituting a purely artificial, arbitrary and mechanical process; whether, moreover, they really accomplish what they propose; whether, since the signs or figures have no natural relation to each other, and none to the things signified, but only the arbitrary relation imposed by the system, it is not really as difficult to fix the connection of the two things in your mind, *e.g.*, to remember that Charles the Second is represented by a dog or by a goose, as it would be simply, and in the natural way, to remember the things themselves without any *such* association.

Extent to which the Memory may be cultivated. — The extent to which the cultivation of the memory may be carried by due training and care, is a topic worthy of some attention. Men of reflection and thought, and generally men of studious habits, literary men and authors, do not, for the most part, rely so much upon the memory as men of a more practical cast and of business pursuits; for this reason, viz., the want of due exercise, this faculty of their minds is not in the most favorable circumstances for development. Some striking exceptions, however, we shall have occasion presently to mention.

It has been already remarked, that prior to the art of printing, the cultivation of the memory was an object of far greater importance, to those who were destined for public life, than it is in modern times, and consequently instances of remarkable memory are much more frequently to be met with among the ancients than among the men of our times. The same remark will apply to men of different pursuits in

any age: the more one has occasion to employ the memory, the more striking will be its development.

Instances of extraordinary Memory. — Cyrus, it is said, knew the name of every officer, Pliny has it of every soldier, that served under him. Themistocles could call by name each one of the twenty thousand citizens of Athens. Hortensius could sit all day at an auction, and at evening give an account from memory of every thing sold, the purchaser, and the price. Muretus saw at Padua a young Corsican, says Mr. Stewart, who could repeat, without hesitation, thirty-six thousand names in the order in which he heard them, and then reverse the order and proceed backward to the first.

Dr. Wallis of Oxford, on one occasion, at night, in bed, proposed to himself a number of fifty-three places, and found its square root to twenty-seven places, and, without writing down numbers at all, dictated the result from memory twenty days afterward. It was not unusual with him to perform arithmetical operations in the dark, as the extraction of roots, *e. g.*, *to* forty *decimal* places. The distinguished Euler, blind from early life, had always in his memory a table of the first six powers of all numbers, from one to one hundred. On one occasion two of his pupils, calculating a converging series, on reaching the seventeenth term, found their results differing by one unit at the fiftieth figure, and in order to decide which was correct, Euler went over the whole in his head, and his decision was found afterward to be correct. Pascal forgot nothing of what he had read, or heard, or seen. Menage, at seventy-seven, commemorates, in Latin verses, the favor of the gods, in restoring to him, after partial eclipse, the full powers of memory which had adorned his earlier life.

The instances now given are mentioned by Mr. Stewart; but perhaps the most remarkable instance of great memory, in modern times, is the case of the celebrated *Magliabechi*, librarian of the Duke of Tuscany. He would inform any one who consulted him, not only who had directly treated of any particular subject, but who had indirectly touched

upon it in treating of other subjects, to the number of perhaps one hundred different authors, giving the name of the author, the name of the book, the words, often the page, where they were to be found, and with the greatest exactness.

To test his memory, a gentleman of Florence lent him at one time a manuscript he had prepared for the press, and, some time afterward, went to him with a sorrowful face, and pretended to have lost his manuscript by accident. The poor author seemed inconsolable, and begged Magliabechi to recollect what he could, and write it down. He assured the unfortunate man that he would, and setting about it, wrote out the entire manuscript without missing a word. He had a *local* memory also, knew where every book stood. One day the Grand Duke sent for him to inquire if he could procure a book which was very scarce. "No, sir," answered Magliabechi; "it is impossible: there is but *one* in the world; that is in the Grand Seignior's library at Constantinople, and is the *seventh book, on the seventh shelf, on the right hand as you go in.*"

VI. Effects of Disease on the Memory.

Forgetfulness of certain Objects. — Of the effect of certain forms of disease, and also of age, in weakening the power of remembering names, I have already spoken. There are other effects, occasionally produced by disease upon this faculty of the mind, which are not so readily explained. In some cases, a certain class of objects, or the knowledge of certain persons, or of a particular language or some part of a language, as substantives, *e. g.*, seems to be lost to the mind; in other cases, a certain portion of life is obliterated from the recollection. In cases of severe injury to the head, persons have forgotten some particular language; others have been unable to recall afterward the names of the most common objects, while the memory was at no loss for adjectives. A surgeon mentioned by Dr. Abercrombie, so far recovered from a fall as to give special directions respecting his

own treatment, yet, for several days, lost all idea of having either a wife or children. The case of Mr. Tennent, who on recovering from apparent death, lost all knowledge of his past life, and was obliged to commence again the study of the alphabet, until after considerable time his knowledge suddenly returned to him, is too well known to require minute description.

Former Objects recalled. — In other instances, precisely the reverse occurs. Disease brings back to mind what has been long forgotten. Thus, persons in extreme sickness, or at the point of death, not unfrequently converse in languages which they have known only in youth. The case cited by Coleridge, and so frequently quoted, of the German servant girl, who in sickness was heard repeating passages of Greek, Latin, and Hebrew, which she had formerly heard her master repeat, as he walked in his study, but of whose meaning she had no idea, is in point in this connection. So also is the case of the Italian mentioned by Dr. Rush, who died in New York, and who, in the beginning of his sickness, spoke English, in the middle of it, French, but on the day of his death, nothing but Italian. A Lutheran clergyman of Philadelphia told Dr. Rush that it was not uncommon for the Germans and Swedes of his congregation, when near death, to speak and pray in their native languages, which some of them had probably not spoken for fifty years. These facts are sufficiently numerous to constitute a class by themselves; they seem to fall under some law of the physical system not yet clearly understood, and are, therefore, in the present state of our knowledge, incapable of explanation.

Inference often drawn from these Facts. — Certain writers have inferred, from the recurrence of things long forgotten, as in the cases now cited, that all knowledge is indestructible and that all which is necessary to the entire reproduction of the past life is the quickened activity of the mental powers an effect which is produced in the delirium of disease. From this they have derived an argument for future retribution

Coleridge has made such use of it, and has been followed by Upham, and in part, at least, though with more caution, by Wayland.

The true Inference. — It may be doubted, perhaps, whether the absolute indestructibility of all human knowledge is a legitimate inference from these facts. The most that can with certainty be concluded from them, is, not that all our past thoughts and consciousness *must* or *will* return, but that much of it *may* — perhaps all of it; and this is all we need to know in order to perceive the *possibility* of a future retribution. It is enough to know, that in the constitution of the mind *means exist* for recalling, in some way to us mysterious, and under certain conditions not by us fully understood, the objects of our former consciousness, in all the freshness and vividness of their past cognizance, long after they seem to have passed finally from the memory.

Importance of a well-spent Life. — This simple fact, together with the well-known tendency of the mind in advancing age to revert to the scenes and incidents of early life, certainly presents in the clearest light the importance of a well-spent life, of a mind stored with such recollections as shall cast a cheerful radiance over the past, and brighten the uncertain future in those hours of gloom and despondency when the shadows lengthen upon the path of earthly pilgrimage, and life is drawing to a close. If the thoughts and impressions of the passing moment are liable, by some casual association, by some mysterious law of our being, under conditions which may at any moment be fulfilled, to recur at any time to subsequent consciousness, with all the minuteness and power of present reality, it becomes us, as we regard our own highest interests, to guard well the avenues of thought and feeling against the first approach of that which we shall not be pleased to meet again, when it will not be in our power to escape its *presence*, or avoid its recognition.

VII. Influence of Memory on the Happiness of Life.

The Pleasures of the Past thus retained. — Of the importance of this faculty as related to other intellectual powers, I have already spoken. I refer now to its value as connected with human happiness, as the source of some of the purest pleasures of life. The present, however joyous, is fleeting and evanescent. Memory seizes the passing moment, fixes it upon the canvas, and hangs the picture on the soul's inner chambers for her to look upon when she will. Thus, in an important sense, the former years are past, but not gone. We live them over again in memory.

Instance of Niebuhr. — It is related of Carsten Niebuhr, the Oriental traveller, that "when old and blind, and so feeble that he had barely strength to be borne from his bed to his chair, the dim remembrance of his early adventures thronged before his memory with such vividness that they presented themselves as pictures upon his sightless eye-balls. As he lay upon his bed, pictures of the gorgeous Orient flashed upon his darkness as distinctly as though he had just closed his eyes to shut them out for an instant. The cloudless blue of the eastern heavens bending by day over the broad deserts, and studded by night with southern constellations, shone as vividly before him, after the lapse of half a century, as they did upon the first Chaldean shepherds whom they won to the worship of the host of heaven; and he discoursed with strange and thrilling eloquence upon those scenes which thus, in the hours of stillness and darkness, were reflected upon his inmost soul."

The same Thing occurs often in old Age. — Something of this kind not unfrequently occurs in advanced life. Picture to yourself an old man of many winters. The world in which his young life began has grown old with him and around him, and its brightest colors have faded from his vision. The life and stir, the whirl and tumult of the busy world, the world of to-day and yesterday, move him not. He heeds but slightly

the events of the passing hour. He lives in a past world The scenes of his childhood, the sports and companions of his youth, the hills and streams, the bright eyes and laughing faces on which his young eyes rested, in which his young heart delighted — these visit him again in his solitude, as he sits in his chair by the quiet fireside. He lives over again the past. He wanders again by the old hills, and over the old meadows. He feels again the vigor of youth. He leads again his bride to the altar. He brings home toys for his children, and enters again into their sports. And so the extremes of life meet. Age completes the circuit, and brings us back to the starting-point. We close where we began. Life is a magic ring.

The recollection of past Sorrow not always painful. — But life is not all joyous. Mingled with the brighter hues of every life are also much sadness and sorrow, and these, too, are to be remembered. It might be supposed that, while memory, by recalling the pleasing incidents of the past, might contribute much to our happiness, she would add, in perhaps an equal degree, to our sorrow, by recalling much that is painful to the thoughts. Such, however, I am convinced, is not the fact. The benevolence of the Creator has ordered it otherwise. To no one, perhaps, is memory the source of greater pleasure, strange as it may seem, than to the mourner. The very circumstances that tend to renew our grief, and keep alive our sorrow, in case of some severe calamity or bereavement, are still cherished with a melancholy satisfaction of which we would not be deprived There is a luxury in our very grief, and in the remembrance of that for which we grieve. We would not forget what we have lost. Every recollection and association connected with it are sacred. Time assuages our grief, but impairs not the strength and sacredness of those associations, nor diminishes the pleasure with which we recall the forms we shall see no more, and the scenes that are gone forever. Every memento of the departed one is sacred; the books

the flowers, the favorite walks, the tree in whose shadow he was wont to recline, all have a significance and a value which the stricken heart only can interpret, and which memory only can afford.

We recollect the Past as it was. — It is to be noticed, also, that, in such cases, the picture which memory furnishes is a transcript of the past as it was; the image is stereotyped and unchangeable. Other things change, we change; that changes not. It has a fixed value. A mother, for instance, loses a child of three years. It ever remains to her a child of three years. She remembers it as it was. She grows old; twenty summers and winters pass; yet as often as she visits the little mound, now scarce to be distinguished from the level surface, there comes to her recollection that little child as he was, when she hung, for the last time, over that pale, sweet face that she should see no more. She still thinks of him, dreams of him, as a child, for it is as such only that she remembers him.

Blessed boon, that gives us just the past; when all things change, fortunes vary, friends depart, the world grows unkind, and we grow old, the former things remain treasured in our memory, and we can stand as mourners at the grave of what we once were.

VIII. Historical Sketch. — Different Theories of Memory.

Ancient Theory. — The idea formerly, and almost universally entertained respecting the *modus operandi* of the faculty we call memory, was, that in perception and the various operations of the senses, certain impressions are made on the sensorium — certain forms and types of things without, certain *images* of them — which remain when the external object is no longer present, and become imprinted thus on the mind. Such, certainly, was the doctrine of the earliest Greek commentators on Aristotle. Such, I must think, is substantially the doctrine of Aristotle himself.

Theory of Aristotle. — His idea is, that memory, as well as imagination, primarily and directly, relates only to sensible objects, and gives us only *images* of these objects, and even when it gives us strictly intellectual objects, gives us these only by images. One cannot *think*, he says, without images. Its source and origin, then, he concludes, is the sensibility, and so it pertains to *animals*, as well as men; only to those, however, which have the perception of time, since memory is a modification of sensation or intellectual conception, under the condition of *time past*. Such being, in his view, the nature and source of memory, he goes on to ask how it is that only a modification (or state) of the mind being present, and the object itself absent, one recalls that absent object?

"Manifestly," he replies, "we must believe that the impression which is produced, in consequence of the sensation, in the soul, and in that part of the body which perceives the sensation, is analogous to a species of painting, and that the perception of that impression constitutes precisely what we call memory. The movement which then takes place in the mind *imprints there a sort of type of the sensation* analogous to the *seal which one imprints on wax with a ring.* Hence it is that those who by the violence of the impression, or by the ardor of age are in a great excitement (movement) have not the memory of things, as if the movement and seal had been applied to running water. In the case of others, however, who are in a sort cold, as the plaster of old edifices, the very *hardness* of the part which receives the impression prevents the image from leaving the least trace. Hence it is that young children and old men have so little memory. It is the same with those who are too lively, and those who are too slow. Neither remember well. The one class are too *humid*, the other too hard. The image dwells not in the soul of the one, makes no impression whatever on that of the other.

"How is it now," he goes on to ask, "that this stamp, impression, image, or painting, in us, a mere mode of the mind, can

recall the absent object?" His answer is, that the impression or image is a *copy* of that object, while, at the same time, it is, in itself considered, only a modification of our mind, just as a painting is a mere picture, and yet a *copy* from nature. (Parva Naturalia: Memory, ch. 1.)

Defence of Aristotle. — Sir W.. Hamilton defends Aristotle against the strictures of Dr. Reid, upon this subject, by the supposition that he used these expressions not in a literal, but in a figurative or analogical sense. The figure, however, if it be one, is very clearly and boldly sustained, and constitutes, in fact, the whole explanation given of the process of memory — the entire theory. Take away these expressions, and you take away the whole substance of his argument, the whole solution of the problem. Sensation, or intellectual conception, produces an *impression* on the soul, and *imprints there a type* of itself, not unlike a painting or the stamp of a seal on wax, and the *perception* of this is *memory*. Such is in brief his theory.

Theory of Hobbes. — Not far remote from this was the theory of Hobbes, who regarded memory as a decaying or vanishing sense; that of Hume, who represents it as merely a somewhat weaker impression than that which we designate as perception; and that of the celebrated Malebranche, who accounted for memory by making it to depend entirely on the changes which take place in the fibres of the brain. "For even as the branches of a tree which have continued some time bent in a certain form, still preserve an aptitude to be bent anew after the same manner, so the fibres of the brain having once received certain impressions by the course of the animal spirits, and by the action of objects, retain a long time some facility to receive these same dispositions. Now the memory consists only in this faculty, since we think on the same things when the brain receives the same impressions."

He goes on to explain how, as the brain undergoes a change in different periods of life, the mind is affected accordingly. "The fibres of the brain in children are soft,

flexible, and delicate; a riper age dries, hardens, and strengthens them; but in old age they become wholly inflexible." * * * "For as we see the fibres which compose the flesh harden by time, and that the flesh of a young partridge is, without dispute, more tender than that of an old one, so the fibres of the brain of a child or youth will be much more soft and delicate than those of persons more advanced in years."

Strictures upon this Theory. — Without disputing what is here stated as to the difference in the fibres of the brain at different periods of life, it remains to be proved that all this has any thing to do with the differences of memory in different persons, or with the phenomena of memory in general.

These theories, it will be observed, all assume that in perception and sensation some physical effect is produced on the system, which remains after the orginal sensation or perception has ceased to act, and that memory is the *result* of that remaining effect, the perception, or conscious cognizance of it by the mind. The process is a purely physiological one. Without insisting on the expressions made use of to represent this process, all which convey the idea strongly of a mechanical effect — type imprinted on the soul, impression made on it as of a seal on wax, image, picture, copy, etc.; allowing these to be mere metaphors; allowing, moreover, that the essential fact all along assumed, is a fact, viz., that in sensation, perception, etc., some physical effect *is* produced on the sensorium; there are still two essential propositions to be established before we can admit any of these theories: 1. That this physical effect *remains* any time after the cause ceases to operate; 2. That if so, it is in any way concerned in the production of memory; and even if these points could be made out, it would still be an open question, in WHAT way, possible or conceivable, this effect or impression on the sensorium gives rise to the phenomenon of memory; for this is, after all, the chief thing to be explained.

CHAPTER II.

IMAGINATION.

§ I.—General Character of this Faculty.

The Point at which we have arrived. — We have thus far treated of those forms of mental representation which are concerned in the reproduction of what has once been perceived or felt, and in the recognition of it as such. It remains still to investigate that form of the representative power, which has for its office something quite distinct from either of these, and which we may term the *creative* faculty.

Office of this Faculty. — By the operation of this power, the former perceptions and sensations are replaced in thought, and combined as in mental reproduction, but not, as in mental reproduction, according to the *original* and *actual*, so that the past is simply repeated, but rather according to the mind's own *ideal*, and at its own will and fancy; so that while the groundwork of the representation is something which has been, at some time, an object of perception, the picture itself, as it stands before the mind in its completeness, is not the copy of any thing actually perceived, but a creation of the mind's own. This power the mind has, and it is a power distinct from either of those already mentioned, and not less wonderful than either. The details of the original perception are omitted; time, place, circumstance fall out, or are varied to suit the fancy; the scene is laid when and where we like; the incidents follow each other no longer in their actual order; the original, in a word, is no longer faithfully transcribed, but the picture is conformed to the taste and pleasure of the artist. The conception becomes IDEAL. This is imagination in its true and proper sphere — the creative power of the mind.

§ II. — Relation of this to other Faculties.

The true province of imagination may be more definitely distinguished by comparing it with other powers of the mind.

Imagination as related to Memory. — How, then, does imagination differ from *memory?* In this, first and chiefly, that memory gives us the actual, imagination, the ideal; in this also, that memory deals only with the past, while imagination, not confined to such limits, sweeps on bolder wing, and without bound, alike through the future and the past. In one respect they agree. Both give the *absent* — that which is not now and here present to sense. Both are rep resentative rather than presentative. Both also are forms of conception.

To Perception. — In what respect does it differ from *perception?* In perception the object is given, presented; in imagination it is thought, conceived; in the former case it is given as *actual*, in the latter, conceived not as actual but as ideal.

To Judgment. — Imagination differs from *judgment*, in that the latter deals, not like the former, with things in themselves considered, but rather with the relations of things — is, in other words, a form not of *simple*, but of *relative* conception; and also in that it deals with these relations as *actual*, not as ideal. It has always specific reference to truth, and is concerned in the formation of opinion and belief, as resting on the evidence of truth, and the perception of the actual relations of things.

To Reasoning. — In like manner it differs from *reasoning*, which also has to do with truths, facts — has for its object to ascertain and state those facts or principles; its sole and simple inquiry being, what is *true?* Imagination concerns itself with no such inquiry, admits of no such limitation. Its thought is not what *did* actually occur, but what in given circumstances *might* occur. Its question is not what really *was*, or *is*, or *will be*, but what *may* be; what

may be *conceived* as possible or probable under such or such contingencies.

Reasoning, moreover, reaches only such truths as are involved in its premises, and may fairly be deduced as conclusions from those premises. It furnishes no new material, but merely evolves and unfolds what lies wrapped up in the admitted premises. Imagination lies under no such restriction. There is no necessary connection between the wrath of Achilles, and the consequences that are made to result from it in the unfolding of the epic.

To Taste. — Imagination and *taste* are by no means identical. The former may exist in a high degree where the latter is essentially defective. In such a case the conceptions of the imagination are, it may be, too bold, passing the limits of probability, or, it may be, offensive to delicacy wanting in refinement and beauty, or in some way deficient in the qualities that please a cultivated mind. This is not unfrequently the case with the productions of the poet, the painter, the orator. There is no lack of imagination in their works, while, at the same time, they strike us as deficient in taste. Taste is the regulating principle, whose office is to guide and direct the imagination, sustaining to it much the same relation that conscience does to free moral action. It is a lawgiver and a judge.

To Knowledge. — Still more widely does imagination differ from simple knowledge. There may be great learning and no imagination, and the reverse is equally true. We know that which is — the actual; we imagine that which is not — the ideal. Learning enlarges and quickens the mind, extends the field of its vision, augments its resources, expands its sphere of thought and action; in this way its powers are strengthened, its conceptions multiplied and vivified. There is furnished, consequently, both more and better material for the creative faculty to work upon Further than this, the imagination is little indebted to learning.

Illustration of these Differences. — To illustrate the differences already indicated: I stand at my window and look out on the landscape. My eye rests on the form and dark outline of a mountain, pictured against the sky. Perception, this. I go back to my desk, I shut my eyes. That form and figure, pencilled darkly against the blue sky, are still in my mind. I seem to see them still. That heavy mass, that undulating outline, that bold rugged summit — the whole stands before me as distinctly as when my eye rested upon it. Conception, this, replacing the absent object. I not only in my thoughts seem to see the mountain thus reproduced, but I *know* it when seen; I recognize it as the mountain which a moment before I saw from my window. Memory, this, connecting the conception with something in my past experience. The picture fades perhaps from my view, and I begin to estimate the probable distance of the mountain, or its relative height, as compared with other mountains. Judgment, this, or the conception of relations. I proceed to calculate the number of square miles of surface on a mountain of that height and extent. Reasoning, this. And now I sweep away, in thought, the actual mountain, and replace it with one vastly more imposing and grand. Eternal snows rest upon its summits; glaciers hold their slow and stately march down its sides; the avalanche thunders from its precipices. *Imagination* now has the field to herself.

§ III. — Active and Passive Imagination.

View of Dr. Wayland. — "If we regard the several act of this faculty," says Dr. Wayland, "we may, I think, observe a difference between them. We have the power to originate images or pictures for ourselves, and we have the power to form them as they are presented in language. The former may be called active, and the latter passive imagination. The active, I believe, always includes the passive power, but the passive does not always include the

active. Thus we frequently observe persons who delight in poetry and romance, who are utterly incapable of creating a scene or composing a stanza. They can form the pictures dictated by language, but are destitute of the power of original combination."

Correctness of this View questioned. — That many who enjoy the creations of the poet and the splendid fictions of the dramatist and novelist, are themselves incapable of producing like creations, is doubtless true. The same is true in other departments of the creative art. Many persons enjoy a fine painting or statue, good music, or a noble architectural design, who cannot themselves produce these works of art. This does not prove them deficient, however, in imagination, for the inability may be owing to other causes, as want of training; nor, on the other hand, does the simple enjoyment of ideal creations involve a different kind of imagination from that exercised in creating. Imagination is, as it seems to me, always active, never passive. Where it exists, and whenever it is called into exercise, it acts, and its action is, in some sense, creative. It conceives the ideal, that which, as conceived, does not exist, or at least is not known to the senses as existing. It matters not in what way these ideal conceptions are suggested, whether by the signs of language written or spoken, or by those characters which the painter, the sculptor, or the architect presents, each in his own way, and with his own material, or by one's own previous conceptions. *Every* ideal conception is suggested by *something* antecedent to itself. All active imagination is, in other words, passive, in the sense here intended, and all passive imagination, so called, is in reality active, so far as it is, properly speaking, imagination at all. The difference between the faculty that produces and that which merely enjoys, is a difference of *degree* rather than of kind. The one is an imagination peculiarly active; the other slightly so; or, more properly, the one mind has *much*, the other *little* imagination.

Philosophic Imagination.—The term *philosophic* imagination, in distinction from *poetic*, is employed by the same distinguished writer to denote the faculty, possessed by some minds of a high order, of discovering new truths in science; of so classifying and arranging known facts as to bring to light the laws which govern them, or, by a happy conjecture, assigning to phenomena hitherto unexplained, a theory which will account for them. Whether the faculty now intended is properly imagination, admits of question. Its field is that of conjecture, supposition, theory, invention. It involves the exercise of judgment and reason. It seeks after truth. It is a process of discovering what is. Imagination deals with the ideal only — inquires not for the true.

§ IV. — Imagination a Simple Faculty.

Common Theory. — The view which has been very generally entertained of the faculty now under consideration, both in this country, and by the Scotch philosophers, resolves it partially or wholly into other powers of the mind, as abstraction, association, judgment, taste. In this view, it is no longer a simple faculty, if indeed it can with propriety be called a faculty at all, inasmuch as the effects ascribed to it can be accounted for by the agency of the other powers now named.

A different View. — It seems to me that imagination, while doubtless it presupposes and involves the exercise of the suggestive and associative principle, of the analytic or divisive principle by which compounds are broken up into their distinct elements, and also, to some extent, of judgment, or the principle which perceives relations, is, nevertheless, itself a power distinct from each of these, and from all of them in combination. Memory *presupposes* perception, or something to be reproduced and remembered. It is not, therefore, to be regarded as a complex faculty, comprising the perceptive power as one of its factors. The power to combine, in

like manner, *presupposes* the previous separation of elements capable of being reunited, but is not to be resolved into that power which produces such separation. It *involves* some exercise of judgment along with its own proper and distinctive activity, but is not to be confounded with, or resolved into the power of perceiving relations.

The faculty of ideal conception is really a power of th mind, and it is a simple power, a thing of itself, although it may involve and presuppose the activity of other faculties along with its own. Abstraction, association, judgment, taste — none of them singly, nor all of them combined, are what we mean by it.

Theory of Brown. — Dr. Brown resolves the faculty now in question into simple suggestion, accompanied, in the case of *voluntary* imagination, with desire, and with judgment. There is nothing in the process different from what occurs in any case of the suggestion of one thought by another, he would say. We think of a mountain, we think of gold, and some analogy, or common property of the two, serves to suggest the complex conception, mountain of gold. Even where the process is not purely spontaneous, but accompanied with desire on our part, it is still essentially the same process. We think of something, and this suggests other related conceptions, some of which we approve as fit for our purpose, others we reject as unfit. Here is simple suggestion accompanied with desire and judgment; and these are all the factors that enter into the process. "We may term this state, or series of states, imagination or fancy, and the term may be convenient for its brevity. But in using it we must not forget that the term, however brief and simple, is still the name of a state that is complex, or of a succession of states, that the phenomena comprehended under it being the same in nature, are not rendered, by the use of a mere word, different from those to which we have already given peculiar names expressive of them as they exist separately; and that it is to the classes of these elementary phenomena

therefore, that we must refer the whole process of imagination in our philosophic analysis."

Strictures on this Theory. — This view, it will be perceived, in reality sweeps the faculty of imagination entirely from the field. To this I cannot yield my assent. Is not this state, or affection of the mind, as Dr. Brown calls it quite a distinct thing from other mental states and affections? Has it not a character *sui generis?* Is not the operation, the thing done, a *different* thing from what is done in other cases, and by other faculties; and has not the mind the *power* of doing this new and different thing; and is not that power of doing a given thing what we mean in any case by a *faculty* of the mind? Is there not an element in this process under consideration which is *not* involved in other mental processes, viz.: the *ideal* element; the conception, not of the actual and the real, as in the case of the other faculties, but of the purely ideal? And if the mind has the faculty of forming a class of conceptions so entirely distinct from the others, why not give that faculty a name, and its own proper name, and allow it a place, its own proper place, among the mental powers?

§ V. — IMAGINATION NOT MERELY THE POWER OF COMBINATION.

The prevalent View. — This question is closely connected with that just discussed. The usual definitions make the faculty under consideration a mere process of combining and arranging ideas previously in the mind, so as to form new compounds. You have certain conceptions. These you combine one with another, as a child puts together blocks that lie before him, to suit himself, now this uppermost, now that, and the result is a work of imagination. It is the mere arrangement of previous conceptions, and not itself a power of producing or conceiving any thing. And even this arrangement of former conceptions is itself a *spontaneous* casual process, according to Dr. Brown, not properly a *power* of the mind.

Makes Imagination little else than Invention. — According to this view, imagination is hardly to be distinguished from mere *invention* in the mechanic arts, which is the result of some new combination of previously existing materials. The construction of a steam-pump with a new kind of valve, is as really a work of imagination, as Paradise Lost. The man who contrives a carding-machine, and the man who conceives the Transfiguration, the Apollo Belvidere, or the Iliad, are exercising both the same faculty — merely combining in new forms the previous possessions of the mind.

This View inadequate. — This is a very meagre and inadequate view, as it seems to me, of the faculty of imagination. It fixes the attention upon, and elevates into the importance of a definition, a circumstance in itself unimportant, while it overlooks the essential characteristic of the faculty to be defined. The *creative activity* of the mind is lost sight of in attending to the *materials* on which it works.

The Distinctive Element of Imagination overlooked. — Imagination I take to be the power of conceiving the ideal. The elements which enter into and compose that ideal conception, are, indeed, elements previously existing, not themselves the mind's creations; but the conception itself is the mind's own creation, and this creative activity, this power of conceiving the purely ideal, is the very essence of that which we are seeking to define. True, the separate conceptions which enter into the composition of Paradise Lost — trees, flowers, rivers, mountains, angels, deities — were already in the poet's mind before he began to meditate the sublime epic. They were but the material on which he wrought. Has he then created nothing, conceived nothing? Have we truly and adequately described that immortal poem when we say that it is a mere combination of trees, rivers, hills, and angels, in certain proportions and relations not previously attempted?

Illustration drawn from the Arts. — The artist makes use

of colors previously existing when he would produce a painting, and of marble already in the block, when he would chisel a statue or a temple. In reality he only combines. Yet it would be but a poor definition of any one of these sublime arts to say that painting, sculpture, architecture, is merely the putting together of previous materials to form new wholes. We object to such a definition, not because it affirms what is not true, but because it does not affirm the chief and most important truth; not because of what it states, but because of what it omits to state. These are creative arts. They give us indeed not new substances, but new forms, new products, new ideas. So is imagination a creative faculty. The individual elements may not be new, but the grand product and result is new, a creation of the mind's own. And this is of more consequence than the fact that the elementary conceptions were already in the mind. The one is the essential characteristic, the other a comparatively unimportant circumstance; the one describes the thing itself, the other the mere *modus operandi* of the thing.

Illustration drawn from the Creation of the material World. — What is *creation* in its higher and more proper sense, as applied to the formation, by divine power, of the world in which we dwell? There was a moment, in the eternity of the past, when the omnipotent builder divided the light from the darkness, and the evening and the morning were the first day. The elements may have existed before — heat, air, earth, water, the various material and diffused substance of the world about to be — but latent, confused, chaotic those elements, not called forth and appointed each to its own proper sphere. Light slumbers amid the chaotic elements unseen. He speaks the word, and it comes forth from its hiding-place, and stands revealed in its own beauty and splendor. Has God made nothing, in so doing? Has he conceived nothing, *created* nothing? And when the work goes on, and is at length complete and the

fair new world hangs poised and trembling on its axis, perfect in every part, and rejoicing the heart of the builder, is there no new power displayed in all this, no creation here? And do we well and adequately express the sublime mystery when we say that the deity has merely arranged and combined materials previously existing, to form a new whole?

Art essentially creative. — So when the poet, the painter, the skillful architect, the mighty orator, call forth from the slumbering elements new forms of beauty and power, are not they, too, in their humble way, creators? True, they have in so doing combined conceptions previously existing in the mind. The writer combines in new forms the existing letters of the alphabet, the painter combines existing colors, the architect puts together previously-existing stones. But is this all he does? Is it the chief thing? Is this the soul and spirit of his divine art? No; there is a new power, a new element, not thus expressed — the power of conceiving, and calling into existence, in the realm of thought, that which has no actual existence in the world of sober reality. He who has this power is a *maker* — ποιητής. It is a power conferred, in some degree, on all, in its highest degree, on few. The poet, painter, orator, the gifted creative man, whoever he is, belongs to this class.

§ VI. — Imagination limited to Sensible Objects.

Law of the Imagination. — It is a law of the imagination, that whatever it represents, it realizes, clothes in sensible forms, conceives as visible, audible, tangible, or in some way within the sphere and cognizance of sense. Whatever it has to do with, whatever object it seizes and presents, it brings within this sphere, invests with sensible drapery. Now, strictly speaking, there are no objects, save those of sense, which admit of this process, which can be, even in conception, thus invested with sensible forms, pictured to the eye, or represented to the other senses as objects of their

cognizance. If I conceive of objects strictly immaterial as thus presented, I make them, by the very conception, to depart from their proper nature and to become sensible. Imagination has nothing to do, then, strictly speaking, with abstract truths and conceptions, with spiritual and immaterial existences, with ideas and feelings as such, for none of these can be represented under sensible forms, or brought within the sphere and cognizance of the senses. Sensible objects are the groundwork, therefore, of its operation — the materials of its art.

But not to visible Objects. — It is not limited, however, to *visible* objects merely — is not a mere picture-forming, image-making power. It more frequently, indeed, fashions its creations after the conceptions which sight affords than those of the other senses; but it deals also with conceptions of sound, as in music, and the play of storm and tempest, and with other objects of sense, as the taste, the touch, pressure, etc. Thus the *gelidi fontes* of Virgil is an appeal to the sense of delicious coolness not less than to that of sparkling beauty. A careful analysis of every act of the imagination will show, I think, a *sensible basis* as the groundwork of the fabric — something seen, or heard, or felt — something said or done — some sensible reality — something which, however ideal and transcendental in itself and in reality, yet admits of expression in and through the senses; otherwise it were a mere conception or *abstraction* — a mere idea — not an imagination.

§ VII. — Imagination limited to New Results.

The simple reproduction of the *past*, whether an object of perception, or sensation, or conception merely, the simple reproduction or bringing back of that to the mind, we have assigned as the office of another faculty. Imagination, we have said, departs from the reality, and gives you not what you have had before, but something new, other, differ

ent. It is not the simple image-making power, then, for mental reproduction gives you an image or picture of any former object of perception, *as* you have seen it — a portrait of the past, true and faithful to the original.

Some writers would differ from the view now expressed. Some of the Germans assign to imagination the double office of producing the new and reproducing the old; the latter they call imaginative reproduction. In what respect this latter differs from the faculty of mental reproduction in general, it is difficult to perceive. When I remember a word spoken, or a song, I have the conception of a *sound*, or a series of sounds. When I remember an object in nature, as a mountain, a house, etc., I have the conception of a material object, having some definite form, and figure, outline, proportion, magnitude, etc. The conception of the absent object presents itself in such a case, of course, as an image or picture of the object to the mental eye. It is as really the work of conception reproductive, however, to replace, in this case, the absent object as once perceived, as it is to bring back to mind any thing else that has once been before it; *e. g.*, a spoken word or a date in history. We may, if we please, term this faculty, as employed on objects of sight, conception *imaginative*, and distinguish it from the same faculty as employed in reproducing other objects; but it were certainly better to appropriate the term imagination to the single and far higher province of creation — the office of conceiving the ideal under the form of the sensible.

§ VIII. — Imagination a Voluntary Power, or Process.

Is it an act which the mind puts forth when it will, and withholds when it will? Or is it a mere passive susceptibility of the mind to be impressed in this particular way? As the harp lies passive to the wind, which comes and goes we know not how or whither, so does the mind lie open to such thoughts and fancies as flit over it, and call forth its hidden

harmonies as they pass by? Those who, with Dr. Brown, resolve imagination into mere suggestion, of course take the latter view.

Often spontaneous. — Undoubtedly, the greater part of our ideal conceptions are spontaneous — the thoughts that rise at the instant, unpremeditated, uncalled, the suggestions of the passing moment or event. This is true of our daily reveries, and all the little romances we construct, when we give the reins to fancy, and a "varied scene of thought" — to use the beautiful expression of Cudworth — passes before us, peopled with forms unreal and illusive. There is no special volition to call up these conceptions, or *such* as these. They take their rise and hue from the complexion of the mind at the time, and the character of the preceding conceptions, in the ever moving, ever varying series and procession of thought. They are like the shifting figures on the curtain in a darkened room, shadows coming and going, as the forms of those without move hither and thither. So far, all is spontaneous. Nay, more: It is, doubtless, impossible, by direct volition, to call up any conception, ideal or otherwise; since this, as Dr. Brown has well argued, would be "either to will without knowing what we will, which is absurd," or else to have already the conception which we wished to have, which is not less absurd.

If no intentional Activity, then Imagination not a Faculty. — Is there then no intentional creation of new and ideal conceptions, of images, similes, metaphors, and other like material of a lively and awakened fancy, but merely a *casual* suggestion of such and such thoughts, quite beyond any control and volition or even purpose of ours? If so, then, after all, is it proper to speak of a faculty of imagination, since we have not, in this case, the *power* of *doing* the thing under consideration? We merely sit still in the darkened room, and watch the figures as they come and go, with some desire that the thing may go on, some appreciation of it, some critical judgment of the different forms and movements

The Mind not wholly passive in the Process. — I reply this is not altogether so. The mind is not altogether *passive* in this thing; there is an *activity* involved in the process, and that of the mind's own. There is a power, either original or acquired, of conceiving such thoughts as are now under consideration, a readiness for them, a proneness to them, a bias, propensity, inclination, more powerful in some than in others, by virtue of which this process occurs. We may call this a faculty, though, more strictly, perhaps, a *susceptibility*, but it is, in truth, one of the endowments of the mind, part of its furniture, one form of its activity.

A more direct voluntary Element. — But there is, further than this, and more directly, a voluntary element in the process. It is in our power to yield, or not, to this propensity, this inclination to the ideal; to put forth the mental activity in this direction, or to withhold it; to say whether or not the imagination shall have its free, full play, and with liberated wing soar aloft through her native skies; whether our speech shall be simple argument, unadorned stout logic, or logic not less stout, clothed with the pleasing, rustling drapery which a lively imagination is able to throw, like a splendid robe, over the naked form of truth.

There is, then, really a mental activity, and an activity in some degree under control of the will, in the process we are considering.

Same Difficulty lies elsewhere. — The same difficulty which meets us here, meets us elsewhere, and lies equally against other mental powers. We cannot, by direct volition, remember a past event, for this implies, as in the case of the volition to imagine a given scene, either that the thing is already in view, or else that we will we know not what. Yet, as every one knows, there is a way of recalling past events; a faculty or power of doing this thing; a faculty which we exercise when we please.

The same may be said of the power of thought in general. We cannot, by direct volition, *think* of any given thing, for

to will to think of it is already to have thought of it, yet there is mental activity involved in every process of thought a mental power exercised, a faculty of some sort exercised. Nor is it a power altogether beyond our own control. We can direct our thoughts, can govern them, can turn them, as we do a water course, that *will* flow somewhere, but whose channel we may lead this way or that.

§ IX. — Use and Abuse of Imagination.

Influence upon the Mind. — As to the benefits arising from the due use and exercise of this faculty, not much, perhaps, is requisite to be said. It gives vividness to our conceptions, it raises the tone of our entire mental activity, it adds force to our reasoning, casts the light of fancy over the sombre plodding steps of judgment, gilds the recollections of the past, and the anticipations of the future, with a coloring not their own. It lights up the whole horizon of thought, as the sunrise flashes along the mountain tops, and lights up the world. It would be but a dreary world without that light.

Influence on the Orator. — By its aid the orator presents his clear, strong argument in its own simple strength and beauty, or commands those skilful touches, that, by a magic spell, thrill all hearts in unison. There floats before his mind, ever as he proceeds, the *beau ideal* of what his argument should be; toward this he aspires, and those aspirations make him what he is. No man is eloquent who has not the imagination requisite to form and keep vividly before him such an ideal.

On the Artist. — By its aid the artist breathes into the manimate marble the breath of life, and it becomes a living soul. By its aid, deaf old Beethoven, at his stringless instrument, calls up the richest harmony of sound, and blind old Milton, in his darkness and desolateness, takes his magician's wand, and lo! there rises before him the vision of that Para-

dise where man, in his primeval innocence, walked with God.

On other Minds. — Nor is it the poet, the orator, the artist, alone, that derive benefit from the exercise of this faculty, or have occasion to make use of it. It is of inestimable value to us all. It opens for us new worlds, enlarges the sphere of our mental vision, releases us from the bonds and bounds of the actual, and gives us, as a bird let loose, the wide firmament of thought for our domain. It gilds the bald, sullen actualities, and stern realities of life, as the morning reddens the chill, snowy summits of the Alps, till they glow in resplendent beauty.

On the Spectator and Observer. — It is of service, not to him who writes alone, but to him who reads; not to him who speaks alone, but to him who hears; not to the artist alone, but to the *observer* of art; for neither poet, nor orator, nor artist, can convey the full meaning, the *soul*, the inspiration of his work, to one who has not the imagination to appreciate and feel the beauty, and the power, that lie hidden there. There is just as much meaning in their works, to us, as there is soul in us to receive that meaning. The man of no imagination sees no meaning, no beauty, no power, in the Paradise Lost, the symphonies of Beethoven and Mozart, the Transfiguration of Raphael, the Aurora of Guido, or the master-pieces of Canova and Thorwalsden.

Errors of Imagination. — Undoubtedly there are errors, mistakes, prejudices, illusions of the imagination; mistakes in judgment, in reasoning, in the affairs of practical life, the source of which is to be found in some undue influence, some wrong use, of the imagination. We mistake its conceptions for realities. We dwell upon its pleasing visions till we forget the sober face of truth. We fancy pleasures, benefits results which will never be realized, or we look upon the dark and dreary side of things till all nature wears the sombre hue of our disordered fancy.

Not, therefore, to set aside its due Culture. — All this we

are liable to do. All these abuses of the imagination are possible, likely enough to occur. Against them we must guard. But to cry out against the culture and due exercise of the imagination, because of these abuses to which it is liable, is not the part of wisdom or highest benevolence. To hinder its fair and full development, and to preclude its use, is to cut ourselves off, and shut ourselves out, from the source of some of the highest, purest, noblest, pleasures of this our mortal life.

No Faculty perhaps of more Value. — It is not too much to say, that there is, perhaps, no faculty of the mind which, under due cultivation, and within proper bounds, is of more real service to man, or is more worthy of his regard, than this. Especially, is it of value in forming and holding before the mind an ideal of excellence in whatever we pursue, a standard of attainment, practicable and desirable, but loftier far than any thing we have yet reached. To present such an ideal, is the work of the imagination, which looks not upon the actual, but the possible, and conceives that which is more perfect than the human eye hath seen, or the human hand wrought. No man ever yet attained excellence, in any art or profession, who had not floating before his mind, by day and by night, such an ideal and vision of what he might and ought to be and to do. It hovers before him, and hangs over him, like the bow of promise and of hope, advancing with his progress, ever rising as he rises, and moving onward as he moves; he will never reach it, but without it he would never be what he is.

§ X. — Culture of the Imagination.

Strengthened by Use. — In what way, it is sometimes asked, may the faculty under consideration be improved and strengthened? To this it may be replied, in general, that the ideal faculty, like every other, is developed and strengthened by exercise, weakened and impaired by neglect. There

is no surer way to secure its growth than to call its present powers, whatever they may be, into frequent exercise. The mental faculties, like the thews and muscles of the physical frame, develop by use. Imagination follows the same general law.

Study of the Works of others. — I do not mean by this exclusively the direct exercise of the imagination in ideal creations of our own, although its frequent employment in this way, is of course necessary to its full development. But the imagination is also exercised by the study of the ideal creations of others, especially of those highly gifted minds which have adorned and enriched their age with productions of rarest value, which bear the stamp and seal of immortality. With these, in whatever department of letters or art, in poetry, oratory, music, painting, sculpture, architecture — whatever is grand, and lofty, and full of inspiration, whatever is beautiful and pleasing, whatever is of choicest worth and excellence in its own proper sphere; with these let him become familiar who seeks to cultivate in himself the faculty of the ideal. Every work of the imagination appeals to the imagination of the observer, and thus develops the faculty which it calls into exercise. No one can be familiar with the creations of Shakspeare and Milton, of Mozart and Beethoven, of Raphael and Michael Angelo, and not catch something of their inspiration.

Study of Nature. — Even more indispensable is the study of nature; and it has this advantage, that it is open to those who may not have access to the sublime works of the highest masters of art. Nature, in all her moods and phases — in her wonderful variety of elements — the grand and the lowly, the sublime and the beautiful, the terrible and the pleasing — nature in her mildest and most fearful displays of power, and also in her softest and sweetest attractions, is open to every man's observation, and he must be a close observer and a diligent student of her who would cultivate in himself the ideal element. The most gifted

sons of genius, the minds most richly endowed with the power of ideal creation, have been remarkable for their love and careful study of nature.

Mistake on this Point. — I must notice in this connection, however, a mistake into which some have fallen in regard to this matter. The simple description of a scene in nature, just as it is, is not properly a work of the imagination. It is simply perception or memory that is thus exercised, along with judgment and artistic power of expression. Imagination gives not the actual, but the ideal. She never satisfies herself with an exact copy. The mere portrait painter, however skillful, is not in the highest sense an artist. The painter, mentioned by Wayland, who copied the wing of the butterfly for the wing of the Sylph, was not, in so doing, exercising his imagination, but only his power of imitation. So, too, when Walter Scott gives us, in the cave of Denzel, a precise description of some spot which he has seen, even to the very plants and flowers that grow among the rocks, that scene, however pleasing and life-like, is not properly a creation of his own imagination; it is a description of the actual, and not a conception of the ideal. Much that is included under the general title of works of the imagination is not properly the production of that faculty.

Coleridge has made essentially the same remark, that in what is called a work of imagination, much is simple narration, much the filling up of the outline, and not to be attributed to that faculty.

The Student of Nature not a mere Copyist. — The true study of nature, is not to observe simply that we may copy what she presents, but rather to gather materials on which our own conceptive power may work, and which it may fashion after its own designs into new combinations and results of beauty. Nature, too, is full of hints and suggestions which a discerning mind, and an eye practised to the beautiful, will not fail to catch and improve. It is only

when we do this, when we begin, in fact, to depart from, and go beyond the actual, that we exercise the imagination.

Difference illustrated by an Example. — The difference between simple description, and the creations of the conceptive faculty, may be shown by reference to a single example:

"The twilight hours, like birds, flew by,
As lightly and as free;
Ten thousand stars were in the sky,
Ten thousand in the sea;
For every wave, with dimpled cheek
That leaped upon the air,
Had caught a star in its embrace,
And held it trembling there."

The quiet stillness of the evening, the reflection of the stars in the sea, are the two simple ideas which enter into this beautiful stanza. They would have been faithfully and fully expressed, so far as regards all the perfections of exact description, by the simple propositions which follow: "The evening hours passed swiftly and silently; many stars appeared in the sky, and each was reflected in the sea."

The poet is not content with this description. The swiftness and silentness of those passing hours remind him of the flight of birds along the sky. The resemblance strikes him as beautiful. He embodies it in his description. It is an ideal conception. He goes further. He sees in the water, not the reflection merely of the stars, but the stars themselves, as many in the sea as in the sky. Here is a departure from the truth, from the actual, an advance into the region of the ideal. Imagination, thus set free, takes still further liberties: attributes to the inanimate wave the *dimpled cheek* of beauty, ascribes its restlessness not to the laws of gravitation, but to the force of a strictly human passion, under the influence of which it leaps into the air

toward the object of its affection, seizes it, and holds it, trembling, in its embrace

§ XI. — Historical Sketch.

Various Definitions and Theories of Imagination by Different Writers.

Definition of Dr. Reid. — *Reid* makes it nearly synonymous with simple apprehension. "I take imagination, in its most proper sense, to signify a lively conception of *objects of sight*," the conception of things as they appear to the eye. *Addison* employs the term with the same limitation, that is, as confined to objects of sight.

Of Stewart. — *Stewart* regards this as incorrect, holds that imagination is not confined to *visible* or even *sensible* objects. He regards it as a complex, not a simple power, including simple apprehension, abstraction, judgment, or taste, and association of ideas; its province being to select, from different objects, a variety of qualities and circumstances, and combine and arrange them so as to form a new creation of its own.

Of Brown. — *Brown* differs not essentially from the view of Stewart. He also makes imagination a complex operation, involving conception, abstraction, judgment, association. He distinguishes between the *spontaneous* and the *voluntary* operation of the imaginative power; in the former case, there is no voluntary effort of selection, combination, etc., but images arise independently of any desire or choice of ours, by the laws of suggestion; and this he holds to be the most frequent operation of the faculty. In the case of voluntary imagination, which is attended with desire this desire is the prominent thing, and serves to keep the conception of the subject before the mind, in consequence of which, a variety of associated conceptions follow, by the laws of suggestion, in regular train. Of these suggested conceptions and images, some, we approve, others, we do

not; the former, by virtue of our approval, become more lively and permanent, while the latter pass away. Thus, without any direct effort or power of the will to combine and separate these various conceptions, they shape themselves according to our approval and desire, in obedience to the ordinary laws of suggestion.

Of Smith. — *Sydney Smith* regards imagination in much the same light — a faculty in which association plays the principal part, assisted by judgment, taste, etc., amounting, in fact, to much the same thing that we call invention; the process by which a poet constructs a drama, or a machinist a steam-engine, being essentially the same.

Of Wayland and Upham. — *Wayland*, in common with most of the authors already cited, makes imagination a complex faculty, involving abstraction, and association; "the power by which, from simple conceptions already existing in the mind, we form complex wholes or images." Some form of abstraction necessarily precedes the exercise of this power. The different elements of a conception must be first mentally severed before we can reunite them in a new conception. "It is this power of reuniting the several elements of a conception at will, that is, properly, imagination. Imagination may then be designated the power of combination." *Upham* takes the same view. The same view, essentially, is also given by *Amandè Jacques*, a French writer of distinction.

View of Tissot. — *Tissot*, as also many of the German philosophers, gives imagination the double province of recalling sensible intuitions, objects of sight, such as we have known them, and also of conceiving objects altogether differently disposed from our original perceptions of them, varied from the reality. The former they call imagination *reproductive*, the latter, *creative*. That form of the imagination which is purely spontaneous, in distinction from the voluntary, they term *fancy*.

Of Coleridge and Mahan. — *Coleridge*, followed by *Ma-*

han, regards imagination as the power which recombines the several elements of thought into conceptions, which conform not to *mere existences*, but to *certain fundamental ideas in the mind itself*, ideas of the beautiful, sublime, etc.

These Definitions agree in what. — These definitions, it will be perceived, with scarcely an exception make imagination to be a complex faculty, and regard it as merely *the power of combining*, in new forms, the various elements of thought already in the mind. The correctness of each of these ideas has been already discussed.

INTELLECTUAL FACULTIES.

PART THIRD.

THE REFLECTIVE POWER

THE REFLECTIVE POWER.

GENERAL OBSERVATIONS.

Office of this Power. — We have thus far treated of that power of the mind by which it takes cognizance of objects as directly presented to sense, and also of that by which it represents to itself former objects of cognition in their absence. But a large portion of our knowledge and of our mental activity does not fall under either of these divisions. There is a class of mental operations which differ from the former, in that they do not give us directly sensations or perceptions of things, do not present objects themselves; and from the latter, in that they do not represent to the thought absent objects of perception; which differ from both, in that they deal not with the things themselves, but with the properties and relations of things — not with the concrete, but with the abstract and general. This class of operations, to distinguish it from the preceding classes, we have named, in our analysis, the *reflective* power of the mind. It comprises a large part of our mental activity.

Specific Character. — The form of mental activity which is characteristic of this faculty, is the perception of relations that which Dr. Brown calls *relative suggestion*, but which we should prefer to term *relative conception*. The mind is so constituted that when distinct objects of thought are presented, it conceives at once the notion of certain relations existing between those objects. One is larger, one

smaller, one is here, the other there, one is a part in relation to a whole, some are like, others unlike each other. The several relations that may exist and fall under the notice of this power of the mind are too many to be easily enumerated. The more important are, position, resemblance, proportion, degree, comprehension. All these may, perhaps, by a sufficiently minute analysis, be resolved into one — that of comprehension, or the relation of a whole to its parts.

Comprehensive of several Processes. — The faculty now under consideration will, on careful investigation, be found to underlie and comprehend several mental processes usually ranked as distinct operations and faculties of the mind, but which are at most only so many forms of the general power of relative conception. Such are the mental operations usually known as *judgment*, *abstraction*, *generalization*, and *reasoning*. Of these, and their relation to the general faculty comprehensive of all, we shall have occasion to speak further as we proceed.

Two Modes of Operation. — As the relations of object to object may all be comprised under the general category of comprehension, or the whole and its parts, there are manifestly two modes or processes in which the reflective faculty may put forth its activity. It may combine the several parts or elements to form a complex whole, or it may divide the complex whole into its several parts and elements. In the one case, it works from the parts, as already resolved, to the whole; in the other, from the whole, as already combined, to the parts. The one is the compositive or synthetic, the other, the analytic or divisive process. Each will claim our attention.

CHAPTER I.

THE SYNTHETIC PROCESS — GENERALIZATION

§ I. — NATURE OF THE SYNTHETIC PROCESS.

Our Conceptions often Complex. — If we examine attentively the various notions or conceptions of the mind, we find that a large part of them are in a sense complex — comprising, in a word, a certain aggregate of properties, which, taken together, constitute our conception of the object. Thus, my notion of table, or chair, or desk, is made up of several conceptions, of form, size, material, color, hardness, weight, use, etc., etc., all which, taken together, constitute my notion of the object thus designated.

Originally given as discrete. — These several elements that enter into the composition of our conceptions of objects, it is further to be noticed, are, in the first instance, given us in perception, not as a complex whole, but as discrete elements. Thus, sight gives us form and color; touch gives us extension, hardness, smoothness, etc.; muscular resistance gives us weight, and so, by the various senses, we gather the several properties which make up our cognizance of the object, and which, taken together, constitute our conception of it.

Conceptions of Classes. — But a large part of our conceptions, if we carefully observe the operations of our own minds, are not particular, but general, not of individual objects, but of classes of objects. Of this, any one may satisfy himself on a little reflection. How are these conceptions formed?

Such Conceptions, how formed. — The process of forming a general conception, I take to be this: The several elements that compose our conception of an individual object,

being originally presented, as we have already said, one by one, in the discrete, and not in the concrete, it is of course in our power to conceive of any one of these elements by itself. No new power or faculty is needed for this. By the usual laws of suggestion any one of these elements may be presented to the mind, distinct from those with which, in perception, it is associated, and as such it may be the object of attention and thought. I may thus conceive of the color, the form, the size, or the fragrance of a flower.

Extension of the Process to other Objects. — It is of the form, color, etc., of some particular flower, as yet, however, and not of form and color in general, that I conceive. Suppose, now, that other flowers are presented to my notice, possessing the same form and color, for example, red. Presently I observe other objects, besides flowers, that are of the same color — horses, cows, tables, books, cloths. As the field of observation enlarges, still other objects are added to the list, until that which I first conceived of as the peculiar property of a single flower, the rose, and of a single specimen, no longer is appropriated in my thoughts to any individual object or class of objects, but becomes a general conception. It is an abstraction and also a generalization; an abstraction because it no longer denotes or connotes any individual object, but stands before the mind as simple, pure quality, red, or redness; a generalization inasmuch as it is a quality pertaining equally to a great variety of objects.

The Process carried still further. — Having thus obtained the general conception of red, and, in like manner, of blue, violet, yellow, indigo, orange, etc., etc., I may carry the process still further, and form a conception more general than either, and which shall include all these. These are all varieties denoting the certain peculiarity of appearance which external objects present to the eye. Fixing my thought upon this, their common characteristic, I no longer conceive of red, or blue, or violet, as such, but of color in general.

In like manner, I observe the properties of different tri angles — right-angled, obtuse-angled, acute-angled, equilateral, isosceles. I leave out of view whatever is peculiar to each of these varieties, retaining only what is common to them all — the property of three-sidedness; and my conception is now a general one — triangle.

It is in this manner that we form the conceptions expressed by such terms as animal, man, virtue, form, beauty, and the like. A large proportion of the words in ordinary use, are of this sort. They are the names or expressions of abstract, general, conceptions: abstract, in that they do not relate to any individual object; general, in that they comprehend, and are equally applicable to a great variety of objects.

Process of Classification. — The process of *classification* is essentially the same with that by which we form general abstract conceptions. Observing different objects, I find that they resemble each other in certain respects, while in others they differ. Objects A, B, and C, differ, for instance, in form, and size, and weight, and fragrance, but agree in some other respect, as in color. On the ground of this resemblance, I class them together in my conceptions. In so doing, I leave out of view all other peculiarities, the points in which they differ, and take into account only the one circumstance in which they agree. In the very act of forming a class, I have formed a general conception, which lies at the basis of that classification.

Tendency of the Mind. — The tendency of the mind to group individual objects together on the ground of perceived resemblances, is very strong, and must be regarded as one of the universal and instinctive propensities of our nature, one of the laws of mental action. As we have already remarked, respecting general abstract terms, a large portion of the language of ordinary life is the language of classification. The words which constitute by far the greater part of the names of things, are common nouns, that is, names of

classes. The names of individual objects are comparatively few. Adjectives, specifying the qualities of objects, denote groups or classes possessing that common quality. Adverbs qualifying verbs or adjectives, designate varieties or classes of action and of quality. Indeed, the very existence of language as a medium of communication, and means of expression, involves and depends upon this tendency of the mind to class together, and then to designate by a common noun, objects diverse in reality, but agreeing in some prominent points of resemblance. In no other way would language be possible to man, since, to designate each individual object by a name peculiar to itself, would be an undertaking altogether impracticable.

Rudeness of the earlier Attempts. — The first efforts of the mind at the process of classification are, doubtless, rude and imperfect. The infancy of the individual, and the infancy of nations and races, are, in this respect, alike; objects are grouped roughly and in the mass, specific differences are overlooked, and individuals differing widely and essentially are thrown into the same class, on the ground of some observed and striking resemblance. As observation becomes more minute, and the mind advances in culture and power of discrimination, these ruder generalizations are either abandoned or subdivided into genera and species, and the process assumes a scientific form. What was at first mere classification, becomes now, in the strictest sense, *generalization.*

Scientific Classification. — Classification, however scientific, is still essentially the process already described. We observe a number of individuals, for example, of our own species. Certain resemblances and differences strike us. Some have straight hair, and copper complexion, others, woolly hair, and black complexion, others, again, differ from the preceding in both these respects. Neglecting minor and specific differences, we fix our attention on the grand points of resemblance, and thus form a general conception, which

embraces whatever characteristics belong, in common, to the several individuals which thus resemble each other. To this general conception we appropriate the name Indian, Negro, Caucasian, etc., which henceforth represent to us so many classes or varieties of the human race. Bringing these classes again into comparison with each other, we observe certain points of resemblance between them, and form a conception still more general, that of man.

Further Illustration of the same Process. — In this way the genera and species of science are formed. On grounds of observed resemblance, we class together, for example, certain animals. They differ from each other in color, size, and many other respects, but agree in certain characteristics which we find invariable, as, for example, the form of the skeleton, number of vertebræ, number and form of teeth, arrangement of organs of digestion. We give a name to the class thus formed — carnivora, rodentia, etc. The class thus formed and named, we term the genus, while the minor differences mark the subordinate varieties or species included under the genus. In the same way, comparing other animals, we form other genera. Bringing the several genera also into comparison, we find them likewise agreeing in certain broad resemblances. These points of agreement, in turn, constitute the elements of a conception and classification still wider and more comprehensive than the former. Under this new conception I unite the previous genera, and term them all mammalia. And so on to the highest and widest generalizations of science.

Having formed our classification we refer any new specimen to some one of the classes already formed, and the more complete our original survey, the more correct is this process of individual arrangement. It is remarked by Mr. Stewart, that the islanders of the Pacific, who had never seen any species of quadruped, except the hog and the goat, naturally inferred, when they saw a cow, that she must belong to one or the other of these classes. The limitations of

human knowledge may lead the wisest philosopher into essentially the same error.

It is in the way now described that we form genera, and species, and the various classes into which, for purposes of science, we divide the multitude of objects which are presented in nature, and which, but for this faculty, would appear to us but a confused and chaotic assemblage without number, order, or arrangement. The individuals exist in nature — not the classes, and orders, and species: these are the creations of the human mind, conceptions of the brain, results of that process of thought now described as the reflective faculty in its synthetic form.

Importance of this Process. — It is evident at a glance that this process lies at the foundation of all science. Had we no power of generalization — had we no power of separating, in our thoughts, the quality from the substance to which it pertains, of going beyond the concrete to the abstract, beyond the particular to the general — could we deal only with individual existences, neither comparison nor classification would be possible; each particular individual object would be a study to us by itself, nor would any amount of diligence ever carry us beyond the very alphabet of knowledge.

Existence of general Conceptions questioned. — Important as this faculty may seem when thus regarded, it has been questioned by some whether, after all, we have, in fact, or can have, any general abstract ideas; whether triangle, man, animal, etc., suggest in reality any thing more to the mind than simply some particular man, or triangle, or animal, which we take to represent the whole class to which the individual belongs.

There can be no question, however, that we do distinguish in our minds the thought of some particular man, as Mr. A, or some particular sort of man, as black man, white man, from the thought suggested by the term man; and the thought of an isosceles or right-angled triangle, from

the thought suggested by the unqualified term triangle. They do not mean the same thing; they have not the same value to our minds. Now there are a great multitude of such general terms in every language, they have a definite meaning and value, and we know *what* they mean. It must be then that we have general abstract ideas, or general conceptions.

Argument of the Nominalist. — But the nominalist replies. The term man, or triangle, awakens in your mind, in reality and directly, only the idea of some particular individual or triangle, and this stands as a sort of *type* or *representation* of other like individuals of whom you do not definitely think as such and so many. I reply, this cannot be shown; but even if it were so, the very language of the objection implies the power of having general conceptions. If the individual man or triangle thought of stands as a type or representation, as it is said, of a great number of similar men and triangles, then is there not already in my mind, prior to this act of representation, the *idea of a class of objects*, arranged according to the law of resemblance, in other words, a *general abstract idea* or *conception?* If I had not already formed such an idea, the particular object presented to my thoughts could not stand as type or representation of any such thing, or of any thing beyond itself, for the simple reason that there would be nothing of the sort to represent.

Further Reply. — Besides, there is a large class of general terms to which this reasoning of the nominalist would not at all apply — such terms as virtue, vice, knowledge, wisdom, truth, time, space — which manifestly do not awaken in the mind the thought of any particular virtue or vice, any particular truth, any definite time, any definite space, but a general notion under which all particular instances may be included. To this the nominalist will perhaps reply, that in such cases we are really thinking, after all, of mere *names* or *signs*, as when we use the algebraic

formula $x-y$, a mere term of convenience, having indeed some value, we do not know precisely what, *itself* the terminus and object of our thought for the time being. In such cases the mind stops, he would say, with the term itself, and does not go beyond it to conjure up a general conception for it. So it is with the terms virtue, vice; so with the general terms, class, species, genus, man, animal, triangle; they are mere collective terms, *signs*, formulas of convenience, to which you attach no more meaning than to the expression $x-y$. If you would find their meaning and attach any definite idea to them, you must resolve them into the *particular* objects, the particular vices, virtues, etc., which go to make up the class.

I reply to all this, you are still classifying, still forming a general conception, the expression of which is your so called formula, $x-y$, alias virtue, man, and the like.

§ II. — Province and Relation of several Terms employed to denote, in Part, or as a Whole, this Power of the Mind.

We are now prepared to consider the proper province and relation of several terms frequently employed, with considerable latitude and diversity of meaning, to denote, in part, or as a whole, the process now described. Such are the terms *abstraction*, *generalization*, *classification*, and *judgment*.

I. Abstraction.

Term often used in a Wide Sense. — This term is frequently employed to denote the entire synthetic process as now described — the power of forming abstract general conceptions, and of classifying objects according to those conceptions. It is thus employed by Stewart, Wayland, Mahan, and others. There is, perhaps, no objection to this use of the word, except that it is manifestly a departure from the strict and proper sense of the term.

More limited Sense. — There is another and more common use of the term abstraction, which gives it a more limited sense. As thus employed, it denotes that act of the mind by which we fix our attention on some one of the several parts, properties, or qualities of an object, to the exclusion of all the other parts or properties which go to make up the complex whole. In consequence of this exclusive direction of the thoughts to that one element, the other elements or properties are lost sight of, drop out of the account, and there remains in our present conception only that one item which we have singled out from the rest. This is denominated, in common language, *abstraction.* Such is the common idea and definition of that term. It is Mr. Upham's definition.

This not really Abstraction. — Whether this, again, is the true idea of abstraction, is, to say the least, questionable. When I think of the cover of a book, the handle of a door, the spring of a watch, in distinction from the other parts which make up a complex whole, I am hardly exercising the power of abstract thought; certainly no new, distinct faculty is requisite for this, but simply attention to one among several items or objects of perception. Hardly ever can it be called analysis, with Wayland. It is the simple direction of the thought to some one out of several objects presented. A red rose is before me. I may think of its color exclusively, in distinction from its form and fragrance; that is, of the redness of this particular rose, this given surface before me. The object of my thought is purely a sensible object. I have not abstracted it from the sensible individual object to which it belongs. It is in no sense an abstract idea, a pure conception. There has been nothing done which is not done in any case where one thing, rather than another of a group or assemblage of objects, is made the object of attention.

The true Nature of Abstraction. — But suppose now that instead of thinking of the redness of this rose in par-

ticular, I think of the color red in general, without reference to the rose or any other substance; or, to carry the process further, of color in general, without specifying in my thought any particular color, evidently I am dealing now with abstractions. I have in my thought *drawn away* (abstraho) the color from the substance to which it belongs, from all substance, and it stands forth by itself a pure conception, an abstraction, having, as such, no existence save in my mind, but there it does exist a definite object of contemplation. The form of mental activity now described, I should call *abstraction*. It is not necessary, perhaps, to assign it a place as a distinct faculty of the mind. It is, in reality, a part, and an important part, of the synthetic process already described. But it is not the whole of that process, and the term abstraction should not, therefore, in strict propriety, at least as now defined, be applied as a general term to designate that class of mental operations. The synthetic process involves something more than mere abstraction; viz.:

II. Classification as Distinguished from Generalization.

Classification. — When the general idea or conception has been formed in the mind, we proceed to bring together and arrange, on the basis of that general conception, whatever individual objects seem to us to fall under that general rule. This we call classification. Thus, forming first the abstract, or general conception red, we bring together in our thought a variety of objects to which this conception is applicable, as red horses, red flowers, red books, red tables, etc., etc., thus forming classes of objects on the ground of this common property. The difference between *classification* and *generalization*, in so far as they are not synonymous, I take to be simply this, that in the former we group and arrange objects according to no general law, but mere appearance or resemblance, often, therefore, on fanciful or arbitrary grounds while in the latter case, we proceed according to

some general and scientific principle or law of classification, making only those distinctions the basis of our arrangement which are founded in nature, and are at once invariable and essential.

III. Judgment as Related to Classification.

Judgment. — We have already spoken of that specific process by which, having formed a given conception, or a given rule, we bring the individual objects of perception and thought under that rule, or reject them from it, according as they agree or disagree with the conception we have formed. The process itself we have called classification. The mental activity thus employed is technically termed *judgment* — the power of subsuming, under a given notion or conception, the particular objects which properly belong there. Thus, the botanist, as he meets with new plants, and the ornithologist, as he discovers new varieties of birds, refers them at once to the family, the genus, the species to which they belong. His mind runs over the generic types of the several classes and orders into which all plants and birds are divided, he perceives that his new specimen answers to the characteristic features of one of these families, or classes, and not to those of the others, and he accordingly assigns it a place under one, and excludes it from the rest. So doing, he exercises judgment. All classification involves and depends upon this power; closely viewed, the action of the mind, in the exercise of this power, amounts simply to this, the perception of agreement or disagreement between two objects of thought. In the case supposed, the genus or species, as described by those who have treated of the particular science, is one of the objects contemplated; the new specimen of plant or bird, as carefully observed and studied, is the other. These two objects of thought are compared; the one is perceived to agree or not to agree with the other; and on the ground of this agreement or disagreement, the

classification is made. This perception of agreement in such a case is an act of judgment, so called.

Not a distinct Faculty. — The form of mental activity now described, is hardly to be ranked as a distinct faculty of the mind, although it has been not unfrequently so treated by writers on mental science. It enters more or less fully into all mental operations; like consciousness and attention, it is, to some extent, involved in the exercise of all the faculties, and cannot, therefore, be ranked, with propriety, as coördinate with them. It is not confined to the investigations of science, but is an activity constantly exercised by all men. We have in our minds a multitude of general conceptions, the result of previous observation and thought. Every moment some new object presents itself. With the quickness of thought, we find its place among the conceptions already in the mind: it agrees with this, it is incompatible with that, it belongs with the one, it is excluded from the other. This is the form of most of our thinking; indeed, no small part of our mental activity consists in this perception of agreements and disagreements, and in the referring of some particular object of experience, some individual conception, to the class or general conception under which it properly belongs. The expression of such a judgment is a proposition. We think in propositions, which are only judgments mentally expressed. We discourse in propositions, which are judgments orally expressed. We cannot frame a proposition which does not affirm, or deny, or call in question, something of something.

Judgment in relation to Knowledge. — Are judgment and knowledge identical? Is all knowledge only some form of judgment? So Kant, Tissot, and other writers of that school, would affirm. "Judgment is the principal operation of the mind, since it is concerned in all knowledge properly so called." "All our knowledges are judgments. To know, is to distinguish, and to distinguish, is at once to affirm, and to deny." Such was also Dr. Reid's doctrine, in opposition

to Locke, who distinguished between knowledge and judgment. Reid, on the contrary, regards knowledge as only one class of judgments, namely, those about which we are most positive and certain. According to this view, judgment seems to cover the whole field of mental activity. Sir William Hamilton thus regards it. We cannot even experience a sensation, he maintains, without the mental affirmation or judgment that we are thus and thus affected.

Common Speech distinguishes them. — It must be admitted, however, that in common use there is a distinction between knowing and judging, the one implying the comparative certainty of the thing known, the other implying some room and ground for doubt, the existence of opinion and belief, rather than of positive knowledge. The word itself, both in its primitive signification, and its derivation, indicating, as it does, the decision by legal tribunal of doubtful cases, favors this usage. That an exercise of judgment is, strictly speaking, involved in all knowledge, is, nevertheless true, since, to know that a thing is thus and thus, and not otherwise, is to distinguish it from other things, and that is to judge.

§ III. — Historical Sketch.

The Realist and Nominalist Controversy.

The Question at Issue. — No question has been more earnestly and even more bitterly discussed, in the whole history of philosophical inquiry, than the point at issue between the Realist and Nominalist, as to what is the precise object of thought when we form an abstract general conception. When I use the term *man*, for example, is it a mere *name*, and nothing more, or is there a *real existence* corresponding to that name, or is it neither a mere name on the one hand, nor, on the other, a real existence, but a conception of my own mind, which is the object of thought?

These three answers can be made, these three doctrines hold, and essentially only these three. Each has been actually maintained with great ability and acuteness. The names by which the three doctrines are respectively designated are, Realism, Nominalism, and Conceptualism.

Early History of Realism. — Of these doctrines, the former, Realism, was the first to develop itself. To say nothing of the ancients, we find traces of it in modern philosophy, as early as the ninth century. Indeed, it would seem to have been the prevalent doctrine, though not clearly and sharply defined; a belief, as Tissot has well expressed it, "spontaneous, blind, and without self-consciousness." John Scotus Erigena, and St. Anselm, Archbishop of Canterbury, both philosophers of note, together with many others of less distinction, in the ninth, tenth, and eleventh centuries, were prominent Realists. The Platonic view may, in fact, be said to have prevailed down to that period. The early fathers of the Christian Church were strongly tinged with Platonism, and the Realistic theory accordingly very naturally engrafted itself upon the philosophy of the middle ages. The logical and the ontological, existence as mere thought of the mind, and existence as reality, were not distinguished by the leading minds of those centuries. The reality of the thought as thought, and the reality of an actual existence, corresponding to that thought, were confounded the one with the other. As the rose of which I conceive has existence apart from my conception, so man, plant, tree, animal, are realities, and not mere conceptions of the mind.

Rise of Nominalism. — It was not till nearly the close of the eleventh century, that the announcement of the opposite doctrine was distinctly made, in opposition to the prevalent views. This was done by Roscelinus, who maintained that universal and general ideas have no objective reality; that the only reality is that of the individuals comprised under these genera; that there are no such existences as

man, animal, beauty, virtue, etc.; that generality is only a pure form given by the mind to the matter of its ideas, a pure abstraction, a mere name.

In this we have the opposite extreme of Realism. If the Realist went too far in affirming the objective reality of his conception, the Nominalist erred on the other in overlooking its subjective reality as a mode or state of the mind, and reducing it to a mere name.

Dispute becomes theological. — The dispute now, unfortunately, but almost inevitably, became theological. The Realist accused the Nominalist of virtually denying the doctrine of the Trinity, inasmuch as, according to him, the idea of Trinity is only an abstraction, and there is no Being corresponding to that idea. To this, Roscelinus replied, with at least equal force and truth, that on the same ground the Realist denied the doctrine of divine unity, by holding a doctrine utterly incompatible with it. Roscelinus, however, was defeated, if not in argument, at least by numbers and authority, and was condemned by council at the close of the eleventh century.

Rise of Conceptualism. — It was about this time, that Abelard, pupil of Roscelinus, proposed a modified view of the matter, avoiding the extreme position both of the Realist and the Nominalist party, and allowing the *subjective*, but not the *objective* reality, of general ideas. This is substantially the doctrine of Conceptualism. The general abstract idea of man, rose, mountain, etc., has indeed no existence or reality as an external object, nor is there among external objects any thing corresponding to this idea; but it has, nevertheless, a reality and existence as a thought, a conception of my mind.

Prevalence of Realism during the twelfth and thirteenth Centuries. — The doctrine, as thus modified, gained some prevalence, but was condemned by successive councils and by the Pope. Sustained by such authority, as well as by the names of men greatly distinguished for learning and

philosophy, Realism prevailed over its antagonists during the latter part of the twelfth and the whole of the thirteenth century. The fourteenth witnessed again the rise and spread of the Conceptualist theory, under the leadership of Occam. The dispute was bitter, leading to strife and even blood.

Later History of the Discussion. — In the seventeenth century we find Hobbes, Hume, and Berkley advocating the doctrine of the Nominalists, while Price maintains the side of Realism. Locke and Reid were Conceptualists, Stewart a Nominalist.

CHAPTER II.

THE ANALYTIC PROCESS — REASONING.

Relation to the Synthetic Process. — We have thus far considered that form or process of the reflective faculty, by which we combine the elements of individual complex conceptions, to form general conceptions and classes, on the basis of perceived agreements and differences. This we have termed the synthetic process. The divisive or analytic process remains to be considered. This, as the name denotes, is, so far as regards the method of procedure, the opposite of the former. We no longer put together, but take apart, no longer combine the many to form one, but from the general complex whole, as already formed and announced, we evolve the particular which lies included in it. This process comprehends what is generally called analysis, and also reasoning.

In discussing this most important mental process, we shall have occasion to treat more particularly of its *nature*, its *forms*, and its *modes*.

§ I. — The Nature of the Process.

Conceptions often Complex. — It was remarked, in speaking of our conceptions, that many of them are complex. My notion of a table, for example, is that of an object possessing certain qualities, as form, size, weight, color, hardness, each of which qualities is known to me by a distinct act of perception, if not by a distinct sense, and each of which is capable, accordingly, of being distinctly, and by itself, an object of thought or conception. The understanding combines these several conceptions, and thus forms the complex notion of a table. The notion thus formed, is neither more nor less than the aggregate, or combination of the several elementary conceptions already indicated. When I am called on to define my complex conception, I can only specify these several elementary notions which go to make up my idea of the table. I can say it is an object round, or square, of such or such magnitude, that it is of such or such material, of this or that color, and designed for such and such uses.

Virtual Analysis of complex Conceptions. — Now when I affirm that the table is round, I state one of the several qualities of the object so called, one of the several parts of the complex notion. It is a partial analysis of that complex conception. I separate from the whole, one of its component parts, and then affirm that it sustains the relation of a part to the comprehensive whole. The separation is a virtual analysis. The affirmation is an act of judgment expressed in the form of a proposition. Every proposition is, in fact, a species of synthesis, and implies the previous analysis of the conception, or comprehensive whole, whose component parts are thus brought together. Thus, when I say snow is white, man is mortal, the earth is round, I simply affirm of the object designated, one of the qualities which go to make up my conception of that object. Every such statement or proposition involves an analysis of the complex conception

which forms the subject of the proposition, while the thing predicated or affirmed is, that the quality designated — the result of such analysis — is one of the parts constituting that complex whole.

Reasoning, what. — Reasoning is simply a series of such propositions following in consecutive order, in which this analysis is carried out more or less minutely. Thus, when I affirm that man is mortal, I resolve my complex notion of man into its component parts, among which I find the attribute of mortality, and this attribute I then proceed to affirm of the subject, man. I simply evolve, and distinctly announce, what was involved in the term man. But this term expresses not merely a complex, but a general notion. Resolving it as such into its individual elements, I find it to comprehend among the rest, a certain person, Socrates, *e. g.*, and the result of this analysis I state in the proposition, Socrates is a man. But on the principle that what is true of a class must be true of the individuals composing it, it follows that the mortality already predicated of the class, man, is an attribute of the individual, Socrates. When I affirm, then, that Socrates is mortal, I announce, in reality, only what was virtually implied in the first proposition — man is mortal. I have analyzed the complex general conception, man, have found involved in it the particular conception, mortal, and the individual conception, Socrates, and by a subsequent synthesis have brought together these results in the proposition, Socrates is mortal, a proposition which sustains to the affirmation, man is mortal, the simple relation of a part to the whole.

Reasoning and Analysis, how related. — This analytic process, as applied to propositions, for the purpose of evolving from a complex general statement, whatever is involved or virtually contained in it, is called reasoning; as applied not to propositions, but to simple conceptions merely, it is known as simple analysis. The psychological process is, in either case, one and the same.

Illustration by Dr. Brown. — Dr. Brown has well illustrated the nature of the reasoning process in its relation to the general proposition with which we set out, by reference to the germ enclosed in the bulb of the plant. "The truths at which we arrive, by repeated intellectual analysis, may be said to resemble the premature plant which is to be found enclosed in that which is itself enclosed in the bulb, or seed which we dissect. We must carry on our dissection more and more minutely to arrive at each new germ; but we do arrive at one after the other, and when our dissection is obliged to stop, we have reason to suppose that still finer instruments, and still finer eyes, might prosecute the discovery almost to infinity. It is the same in the discovery of the truths of reasoning. The stage at which one inquirer stops is not the limit of analysis in reference to the object, but the limit of the analytic power of the individual. Inquirer after inquirer discovers truths which were involved in truths formerly admitted by us, without our being able to perceive what was comprehended in our admission. * * * There may be races of beings, at least we can conceive of races of beings, whose senses would enable them to perceive the ultimate embryo plant enclosed in its innumerable series of preceding germs; and there may, perhaps, be created powers of some higher order, as we know that there is one Eternal Power, able to feel, in a single comprehensive thought, all those truths, of which the generations of mankind are able, by successive analyses, to discover only a few, that are, perhaps, to the great truths which they contain, only as the flower, which is blossoming before us, is to that infinity of future blossoms enveloped in it, with which, in ever renovated beauty, it is to adorn the summers of other ages."

Inquiry suggested. — But here the inquiry may arise How happens it that, if the reasonings which conduct to the profoundest and most important truths, are but successive and continued analyses of our previous conceptions, we should have admitted those preceding truths and concep

tions without a suspicion of the results involved in them? The reason is probably to be found, as Dr. Brown suggests, in the fact that in the process of generalizing we form classes and orders before distinguishing the minuter varieties; we are struck with some obvious points of agreement which lead us to give a common place and a common term to the objects of such resemblance, and this very circumstance of agreement which we perceive, may involve other circumstances which we do not at the time perceive, but which are disclosed on minute and subsequent attention. "It is as if we knew the situations and bearings of all the great cities in Europe, and could lay down, with most accurate precision, their longitude and latitude. To know thus much, is to know that a certain space must intervene between them, but it is not to know what that space contains. The process of reasoning, in the discoveries which it gives, is like that topographic inquiry which fills up the intervals of our map, placing here a forest, there a long extent of plains, and beyond them a still longer range of mountains, till we see, at last, innumerable objects connected with each other in that space which before presented to us only a few points of mutual bearing."

The Position further argued from the Nature of the Syllogism. — That all deductive reasoning, at least, is essentially what has now been described, an analytic process, is evident from the fact that the syllogism to which all such argument may be reduced, is based upon the admitted principle that whatever is true of the class, is true of all the individuals comprehended under it. Something is affirmed of a given class; an individual or individuals are then affirmed to belong to that class; and on the strength of the principle just stated, it is thereupon affirmed that what was predicated of the class is also true of the individual. Nothing can be plainer than that in this process we are working from the given whole to the comprehended parts, from the complex conception stated at the outset, to the truths that

lie hidden and involved in it. In other words, it is a process of analysis which we thus perform, and as all reasoning, when scientifically stated, is brought under this form, it follows that all reasoning is essentially analytic in its nature.

Inductive Reasoning no Exception.—It may be supposed that the inductive method of reasoning is an exception to this rule, inasmuch as we proceed, in that case, not from the general to the particular, but the reverse. Whatever may be true of deduction, is not induction essentially a synthetic process? So it might, at first, appear. I have observed, for example, that several animals of a particular species, sheep, for instance, chew the cud. Having observed this in several instances, I presently conclude that the same is true of the whole class to which these several individuals belong, in other words, that all sheep are ruminant. Extending my observation further, I find other species of animals likewise chewing the cud. I observe, moreover, that every animal, possessing this characteristic, is distinguished by the circumstance of having horns and cloven hoofs; I find, so far as my observation goes, the two things always associated, and hence am led, on observing the one, immediately to infer the other. The proposition that was at the outset particular, now becomes general, viz., all animals that have horns and cloven hoofs are ruminant. Is the conclusion at which I thus arrive, involved in the premiss with which I start? Is the fact that all horned and cloven-footed animals are ruminant, implied and contained in the fact that *some* horned and cloven-footed animals, that is, so many as I have observed, are so?

Even here the Evidence of the Conclusion lies in the Premiss.—A little reflection will convince us that these questions are to be answered in the affirmative. If the conclusion be itself correct and true, then it is a truth involved in the previous proposition: for whatever evidence I have of the truth of my conclusion, that all animals of this sort are ruminant, is manifestly derived from, and therefore con-

tained in, the fact that such as I have observed are so. I have no other evidence in the case supposed. If this evidence is insufficient, then the conclusion is not established. If it be sufficient, then the conclusion which it establishes, is derived from and involved in it.

The argument fully and scientifically stated, runs thus:

A, B, C, animals observed, are ruminant. But A, B, C, represent the class Z to which they belong.

Therefore, class Z is ruminant.

Admitting now the correctness of my observation in respect to A, B, C, that they are ruminant, the argument turns entirely upon the second proposition that A, B, C, represent the class Z, so that what is true of them in this respect, is true of the whole class. If A, B, C, *do* represent the class Z, then to say that A, B, C, are ruminant, is to say that Z is so. The one is contained in the other. If they do *not*, then the conclusion is itself groundless, and there is no occasion to inquire in what it is contained, or whether it is contained in any thing. It is no longer a valid argument and therefore cannot be brought in evidence that some reasoning is not analytic.

What sort of Propositions constitute Reasoning. — It is hardly necessary to state that not any and every series of propositions constitute reasoning. The propositions must be consecutive, following in a certain order, and not only so, but must be in such a manner connected with and related to each other, that the truth of the final proposition shall be manifest from the propositions which precede. To affirm that snow is white, that gold is more valuable than silver, and that virtue is the only sure road to happiness, is to state a series of propositions, each one of which is true, but which have no such relation to each other as to constitute an argument. The truth of the last proposition does not follow from the truth of the preceding ones.

§ II. — Relation of Judgment and Reasoning

Judgment Synthetic, Reasoning Analytic. — The relation of judgment and reasoning to each other becomes evident from what has been said of the nature of the reasoning process. Judgment is essentially synthetic. Reasoning, essentially analytic. The former combines, affirms one thing to be true of another; the latter divides, declares one truth to be contained in another. All reasoning involves judgment, but all judgment is not reasoning. The several propositions that constitute a chain of reasoning, are so many distinct judgments. Reasoning is the evolution or derivation of one of these judgments, viz., the conclusion, from another, viz., the premiss. It is the process by which we arrive at some of our judgments.

Mr. Stewart's View. — Reasoning is frequently defined as a combination of judgments, in order to reach a result not otherwise obvious. Mr. Stewart compares our several judgments to the separate blocks of stone which the builder has prepared, and which lie upon the ground, upon any one of which a person may elevate himself a slight distance from the ground; while these same judgments, combined in a process of reasoning, he likens to those same blocks converted now, by the builder's art, into a grand staircase leading to the summit of some lofty tower. It is a simple combination of separate judgments, nor is there any thing in the last step of the series differing at all in its nature, says Mr Stewart, from the first step. Each step is precisely like every other, and the process of reaching the top is simply a repetition of the act by which the first step is reached.

This View called in Question. — It is evident that this position is not in accordance with the general view which we have maintained of the nature of the reasoning process. According to this view, reasoning is not so much a combination as an analysis of judgments; nor is the last of the several propositions in a chain of argument of the same nature pre-

cisely as the first. It is, like the first, a judgment, but unlike the first, it is a particular sort of judgment, viz., an inference or conclusion, a judgment involved in and derived from the former.

In the series of propositions, A is B, B is C, therefore A is C, the act of mind by which I perceive that A is B, or that B is C, is not of the same nature with that by which I perceive the consequent truth that A is C; no mere repetition of the former act would amount to the latter. There is a new sort of judgment in the latter case, a deduction from the former. In order to reach it, I must not merely perceive that A is B, and that B is C, but must also perceive the connection of the two propositions, and what is involved in them. It is only by bringing together in the mind these two propositions, that I perceive the new truth, not otherwise obvious, that A is C, and the state or act of mind involved in this latter step seems to me a different one from that by which I reach the former judgments.

§ III. — Different Kinds of Reasoning.

Two Kinds of Truth. — The most natural division is that according to the subject-matter, or the materials of the work. The truths which constitute the material of our reasoning process are of two kinds, *necessary*, and *contingent*. That two straight lines cannot enclose a space, that the whole is greater than any one of its parts, are examples of the former. That the earth is an oblate spheroid, moves in an elliptical orbit, and is attended by one satellite, are examples of the latter.

The Difference lies in what. — The difference is not that one is any *less certain* than the other, but of the one you cannot conceive the opposite, of the other you can. That three times three are nine, is no more true and certain, than that Cæsar invaded Britain, or that the sun will rise to-morrow a few minutes earlier or later than to-day. But the one

admits of the contrary supposition without absurdity, the other does not; the one is contingent, the other necessary Now these two classes of truths, differing as they do, in this important particular, admit of, and require, very different methods of reasoning. The one class is susceptible of *demonstration*, the other admits only that species of reasoning called *probable* or *moral*. It must be remembered, however that when we thus speak we do not mean that this latter class of truths is deficient in proof; the word probable is not, as thus used, opposed to *certainty*, but only to *demonstration*. That there is such a city as Rome, or London, is just as *certain* as that the several angles of a triangle are equal to two right-angles; but the evidence which substantiates the one is of a very different nature from that of the other. The one can be demonstrated, the other cannot. The one is an eternal and necessary truth, subject to no contingence, no possibility of the opposite. The other is of the nature of an event taking place in time, and dependent on the will of man, and might, without any absurdity, be supposed not to be as it is.

I. Demonstrative Reasoning.

Field of Demonstrative Reasoning. — Its field, as we have seen, is necessary truth. It is limited, therefore, in its range, takes in only things abstract, conceptions rather than realities, the relations of things rather than things themselves, as existences. It is confined principally, if not entirely, to mathematical truths.

No degrees of Evidence. — There are no *degrees* of evidence or certainty in truths of this nature. Every step follows irresistibly from the preceding. Every conclusion is inevitable. One demonstration is as good as another, so far as regards the certainty of the conclusion, and one is as good as a thousand. It is quite otherwise in probable reasoning.

Two Modes of Procedure. — In demonstration, we may

proceed directly, or indirectly; as, *e. g.*, in case of two triangles to be proved equal. I may, by super-position, prove this directly; or I may suppose them unequal, and proceed to show the absurdity of such a supposition; or I may make a number of suppositions, one or the other of which *must* be true, and then show that all but the one which I wish to establish are false.

Force of Mathematical reasoning. — The question arises whence the peculiar force of mathematical, in distinction from other reasoning? — a fact observed by every one, but not easily explained: how happens this, and on what does it depend, this irresistible cogency which compels our assent? Is it owing to the pains taken to define the terms employed, and the strict adherence to those definitions? I think not; for other sciences approximate to mathematics in this, but not to the cogency of its reasoning. The explanation given by Stewart is certainly plausible. He ascribes the peculiar force of demonstrative reasoning to the fact, that the first principles from which it sets out, *i. e.*, its definitions, are *purely hypothetical*, involving no basis or admixture of facts, and that by simply reasoning strictly upon these assumed hypotheses the conclusions follow irresistibly. The same thing would happen in any other science, could we (as we cannot) construct our definitions to suit ourselves, instead of proceeding upon *facts* as our data. The same view is ably maintained by other writers.

If this be so, the superior certainty of mathematical, over all other modes of reasoning, if it does not quite vanish, becomes of much less consequence than is generally supposed. Its truths are necessary in no other sense than that certain definitions being assumed, certain *suppositions* made, then the certain other things follow, which is no more than may be said of any science.

Confirmation of this View. — It may be argued, as a confirmation of this view, that whenever mathematical reasoning comes to be applied to sciences involving facts either

as the data, or as objects of investigation, where it is no longer possible to proceed entirely upon hypothesis, as, *e. g.*, when you apply it to mechanics, physics, astronomy, practical geometry, etc., then it ceases to be demonstrative, and becomes merely probable reasoning.

Mathematical reasoning supposed by some to be identical. — It has been much discussed whether all mathematical reasoning is merely identical, asserting, in fact, nothing more than that $a=a$; that a given thing is equivalent to itself, capable of being resolved at last into merely this. This view has been maintained by Leibnitz, himself one of the greatest mathematicians, and by many others. It was for a long time the prevalent doctrine on the Continent. Condillac applies the same to all reasoning, and Hobbes seems to have had a similar view, *i. e.*, that all reasoning is only so much addition or subtraction. Against this view Stewart contends that even if the propositions themselves might be represented by the formula $a=a$, it does not follow that the various steps of reasoning leading to the conclusion amount merely to that. A paper written in cipher may be said to be identical with the same paper as interpreted; but the evidence on which the act of deciphering proceeds, amounts to something more than the perception of identity. And further, he denies that the propositions are identical, *e. g.*, even the simple proposition $2 \times 2=4$. 2×2 express one set of quantities, and 4 expresses another, and the proposition that asserts their equivalence is not identical; it is not saying that the same quantity is equal to itself, but that two different quantities are equivalent.

II. Probable Reasoning.

Not opposed to Certainty. — It must be borne in mind, as already stated, that the probability now intended is not opposed to certainty. That Cæsar invaded Britain is *certain*, but the reasoning which goes to establish it, is only probable reasoning, because the thing to be proved is

an event in history, contingent therefore, and not capable of demonstration.

Sources of Evidence. — Evidence of this kind of truths is derived from three sources: 1. Testimony; 2. Experience; 3. Analogy.

1. *Evidence of Testimony.*

In itself probable. — This is, à priori, *probable.* We are so constituted as to be inclined to believe testimony, and it is only when the incredibility of the witness has been ascertained by sufficient evidence, that we refuse our assent. The child believes whatever is told him. The man, long conversant with human affairs, becomes wary, cautious, suspicious, incredulous. It is remarked by Reid that the evidence of testimony does not depend altogether on the character of the witness. If there be no *motive* for deception, especially if there be weighty reasons why he should speak truth, or if the narrative be in itself probable and consistent, and tallies with circumstances, it is in such cases to be received even from those not of unimpeachable integrity.

Limits of Belief. — What are the limits of belief in testimony? Suppose the character of witnesses to be good, the narrative self-consistent, the testimony concurrent of various witnesses, explicit, positive, full, no motive for deception; are we to believe in that case whatever may be testified? One thing is certain, we do in fact believe in such cases; we are so constituted. Such is the law of our nature. Nor can it be shown irrational to yield such assent. It has been shown by an eminent mathematician that it is always possible to assign a number of independent witnesses, so great that the falsity of their concurrent testimony shall be mathematically more improbable, and so more incredible, than the truth of their statement, *be it what it may.*

Case supposed. — Suppose a considerable number of men of undoubted veracity, should, without concert, and agreeing in the main as to particulars, all testify, one by one, that

they witnessed, on a given day and hour, some very strange occurrence, as, *e.g.*, a ball of fire, or a form of angelic brightness, hovering in the air, over this building, or any like unwonted and inexplicable phenomenon. Are we to withhold or yield our assent? I reply, if the number of witnesses is large, and the testimony concurrent, and without concert, and no motive exists for deception, and they are men of known integrity, especially if they are sane and sober men, not easily imposed upon, I see not how we can reasonably withhold assent. Their testimony is to be taken as true testimony, *i.e.*, they did really witness the phenomenon described. The proof becomes stronger or weaker in proportion as the circumstances now mentioned coëxist to a greater or less extent, *i.e.*, in proportion as there are more or fewer of these concurring and corroborating circumstances. If there was but a single witness, or if a number of the witnesses were not of the best character, or if there were some possible motive for deception, or if they were not altogether agreed as to important features of the case, so far the testimony would of course be weakened. But we may always suppose a case so strong that the falsity of the witnesses would be a greater miracle than the truth of the story. This is the case with the testimony of the witnesses to our Saviour's miracles.

Distinction to be made. — An important distinction is here to be noticed between the falsity, and the incorrectness, of the witness, between his intention to deceive, and his being himself deceived. He may have seen precisely what he describes; he may be mistaken in thinking it to have been an angel, or a spirit, or a ball of fire. Just as in the case of certain illusions of sense — an oar in the water — the eye correctly reports what it sees, but the judgment is in error, in thinking the oar to be crooked. So the witness may be true, and the testimony true in the case of a supposed miracle or other strange phenomenon; the *appearance* may have been just as stated, but the question may still be raised,

were the witnesses correct, in their inference, or judgment, as to what was the cause of the said appearance, as to *what it was* that they saw or heard?

This must be decided by the rules that govern the proceedings of sensible men in common affairs of life.

2. *Reasoning from Experience.*

Induction as distinguished from Deduction. — This is called *induction*, the peculiar characteristic of which, in distinction from deductive reasoning, is that it begins with individual cases, and from them infers a general conclusion, whereas, the deductive method starts with a general proposition, and infers a particular one. From the proposition all men are mortal, the syllogism infers that Socrates is mortal. From the fact that Socrates, Plato, Aristotle, Pliny, Cæsar, Cicero, and any number of other individuals, are mortal, induction leads you to conclude that all men are so. The premises here are facts occurring within the range of observation and experience, and the reasoning proceeds on the principle of the general uniformity of nature and her laws. Induction, then, is, in other words, the process of inferring that what we know to be true in certain observed cases, is also true, and will be found to be true, in other like cases which have not fallen under our observation.

Basis of this Mode of reasoning. — The groundwork of induction, as I have already said, is the axiom or universal proposition of the uniformity of nature. Take this away, and all reasoning from induction or experience fails at once. This is a truth which the human mind is, by its nature and constitution, always disposed to proceed upon. It may not be embodied in the shape of a definite proposition, but it is tacitly assumed and acted upon by all men. How came we by this general truth. Is it *intuitive?* So say the disciples of certain schools, so says Cousin, and so say the Scotch metaphysicians, and the German. Others, however, contend that it is itself an induction, as truly as any other, a truth learned

from experience and observation, and by no means the first, but rather among the latest of our inductions. Without stopping to discuss this question, it is sufficient for our purpose to notice the fact, that this simple truth is universally admitted, and constitutes the basis of all reasoning from experience.

Incorrect Mode of Statement. — The proposition is sometimes incorrectly stated, as, *e. g.*, that the future will resemble the past. This is not an adequate expression of the great truth to which we refer. It is not that the future merely will resemble the past merely, but that the unknown will resemble the known. The idea of time is not properly connected with the subject. That which is unknown may lie in the future, it may lie in the present or the past.

Limits of this Belief. — An important question here arises. What are the limits, if limits there are, to this belief of the uniformity of nature, and to the reasoning based on that belief? Are we warranted, in all cases, in inferring that the unknown will be, in similar circumstances, like the known — that what we have found to be true in five, ten, or fifty cases, and without exception, will be universally true? We do reason thus very generally. Such is the tendency of the mind, its nature. Is it correct procedure? Is it certain that our experience, though it be uniform and unvaried, is the universal experience? If not, if limits there are to this method of reasoning, what are they?

Erroneous Induction. — The inhabitants of Siam have never seen water in any other than a liquid or gaseous form. They conclude that water is never solid. The inhabitants of central Africa may be supposed never to have seen or heard of a white man. They infer that all men are black. Are these correct inductions? No; for they lead to false conclusions. They are built on insufficient foundations. There was not a sufficiently wide observation of facts to justify so wide a conclusion. Evidently, we cannot infer from our own non-observation of exceptions, that excep-

tions do not exist. We must first know that if there were exceptions we should have known them. In both the cases now supposed, this was overlooked. The African has only seen men who were natives of Africa. There may be in other countries, races that he has not seen, and has had no opportunity to see. The world may be full of exceptions to this general rule, and yet he not know it. Correct induction in his case would be this: I have seen many men, natives of central Africa, and they have all been black men, without exception. I conclude, therefore, that *all* the natives of central Africa are black. In a word, it is only *under like circumstances* that we can infer the uniformity of nature, and so reason inductively from the known to the unknown.

Superstitious Belief of the Ancients. — The tendency of men to believe in the universal permanence of nature, and, on that ground, to generalize from insufficient data, is illustrated in the superstitious and widely prevalent idea among the ancients, and some of the moderns also, of grand cycles of events extending both to the natural and the *moral* world. According to this idea, the changes of the atmosphere, and all other natural phenomena, as observed at any time, would, after a period, return again in the same order of succession as before; storms, and seasons, and times, being subject to some regular law. It was supposed, in fact, "that all the events" — to use the language of one of these theorists — "within the immeasurable circuit of the universe, are the successive evolutions of an extended series, which, at the return of some vast period, repeats its eternal round during the endless flux of time." This is a sufficiently grand induction, startling in its sweep and range of thought, but requiring for its data a somewhat wider observation of facts than can fall to the lot of short-lived and short-sighted man, during the few years of his narrow sojourn, and pilgrimage, in a world like this.

3. *Reasoning from Analogy.*

Meaning of the term Analogy. — This word, analogy, is used with great variety of meaning, and with much vague ness, therefore. It properly denotes any sort of resemblance, whether of relation or otherwise; and the argument from analogy is an argument from resemblance, an argument of an inductive nature, but not amounting to complete induction. A resembles B in certain respects; therefore it probably resembles it, also, in a certain other respect: such is the argument from *analogy*. A resembles B in such and such properties, but these are always found connected with a certain other property; therefore A resembles B also in regard to that property: such is the argument from *induction*. Every resemblance which can be pointed out between A and B creates a further and increased probability that the resemblance holds also in respect to the property which is the object of inquiry. If the two resembled each other in all their properties, there would be no longer any doubt as to this one, but a positive certainty, and the more resemblances in other respects so much the nearer we come to certainty respecting the one that happens to be in question.

Illustration of this Principle. — It was observed by Newton, that the diamond possessed a very high refractive power compared with its density. The same thing he knew to be true of combustible substances. Hence, he conjectured that the diamond was combustible. He conjectured the same thing, and for the same reason, of water, *i. e.*, that it contains a combustible ingredient. In both instances, he guessed right — reasoning from analogy.

Further Illustration of Reasoning from Analogy. — Reasoning from analogy, I might infer that the moon is inhabited, thus: The earth is inhabited — land, sea, and air, are all occupied with life. But the moon resembles the earth in figure, relation to the sun, movement, opacity, etc.; moreover, it has volcanoes as the earth has; therefore, it is

probably like the earth in this other respect, that of being inhabited. To make this out by induction, I must show that the moon not only resembles the earth in these several respects, but that these circumstances are in other cases observed to be connected with the one in question; thus, in other cases, bodies that are opaque, spherical, and moving in elliptical orbits, are known to be inhabited. The same thing is probably true then in all cases, and inasmuch as the moon has these marks, it is therefore inhabited.

Counter Probability. — On the other hand, the points of dissimilarity create a counter probability, as, *e. g.*, the moon has no atmosphere, no clouds, and therefore no water; but air and water are, on our planet, essential to life; the presumption is, then, looking at these circumstances merely, that the moon is uninhabited. Nay, more: if life exists, then it must be under very different conditions from those under which it exists here. Evidently, then, the greater the resemblance in other respects between the two planets, the less probability that they differ in this respect (*i. e.*, the mode of sustaining life), so that the resemblances already proved, become, themselves, presumptions *against* the supposition that the moon is inhabited.

Amount of Probability. — The analogy and diversity, when they come thus into competition and the arguments from the one conflict with those of the other, must be weighed against each other. The extent of the resemblance, compared with the extent of the difference, gives the amount of probability on one side or the other, so *far as these elements are known.* If any region lies unexplored, we can infer nothing with certainty or probability as to that. Suppose, then, that so far as we have had the means of observing, the resemblances are to the differences as four to one; we conclude with a probability of four to one, that any given property of the one will be found to belong to the other. The chances are four out of five.

Value of Analogical Reasoning. — The chief value of

analogy, as regards science, however, is as a guide to conjecture and to experiment; and even a faint degree of analogical evidence may be of great service in this way, by directing further inquiries into that channel, and so conducting to eventual probability, or even certainty.

It is well remarked by Stewart, that the tendency of our nature is so to reason from analogy, that we naturally confide in it, as we do in the evidence of testimony.

Liable to mislead. — It must be confessed, however, that it is a species of reasoning likely to mislead in many cases. Its chief value lies not in proving a position, but in rebutting objections; it is good, not for assault, but defence. As thus used it is a powerful weapon in the hands of a skilful master. Such it was in Butler's hands.

§ IV. — Use of Hypotheses and Theories in Reasoning

Theory, what. — The terms hypothesis and theory are often used interchangeably and loosely. Confusion is the result. It is difficult to define them accurately.

Theory (from the Greek, *θεωρια*; Latin, theoria; French, théorie; Italian, teoria; from *θεωρεω*, to perceive, see, contemplate) denotes properly any philosophical explanation of phenomena, any connected arrangement and statement of facts according to their bearing on some real or imaginary law. The facts, the phenomena, once known, proved, rest on independent evidence. Theory takes survey of them as such, with special reference to the law which governs and connects them, whether that law be also known or merely conjectured.

Hypothesis, what. — *Hypothesis* (*ὑπο-τιθημι*) denotes a gratuitous supposition or conjecture, in *the absence* of all positive knowledge as to what the law is that governs and connects the observed phenomena, or as to the cause which will account for them.

Theory may or may not be Hypothesis. — Hypothesis is, is

its nature, conjectural, and therefore uncertain; has its degrees of probability — no certainty. The moment the thing supposed is proved true, or verified, if it ever is, it ceases to be hypothesis. Theory, however, is not necessarily a matter of uncertainty. After the law or the cause is ascertained, fully known, and no longer a hypothesis at all, there may be still a theory about it; a survey of the facts and phenomena, as they stand affected by that law, or as accounted for by that cause. The motion of the planets in elliptical orbits, was originally matter of conjecture, of hypothesis. It is still matter of theory.

Probability of Hypothesis.— The probability of a hypothesis is in proportion to the number of facts or phenomena, in the given case, which it will satisfactorily explain, in other words, account for. Of several hypotheses, that is the most probable which will account for the greatest number of the given phenomena — those which, if the hypothesis be true, ought to fall under it as their law. If it accounts for all the phenomena in the case, it is generally regarded as having established its claim to certainty. So Whewell maintains. This, however, is not exactly the case. The hypothesis can be verified only by showing that the facts or phenomena in the case cannot possibly be accounted for on any *other* supposition, or result from any *other* cause; not simply that they can be accounted for, or can result from this. This is well stated by Mill in his System of Philosophy. The hypothesis of the undulating movement of a subtle and all-pervading ether will account for many of the known phenomena of light; but it has never been shown, and in the nature of the case never can be, probably, that no *other* hypothesis possible or supposable will also account for them.

Use of Hypotheses. — As to the *use* of hypotheses in science, Reid's remarks are altogether too sweeping, and quite incorrect. It is not true that hypotheses lead to no valuable result in philosophy. Almost all discoveries were at first hypotheses, suppositions, lucky guesses, if you please to call

them so. The Copernican theory that the earth revolves on its axis was a mere hypothesis at the outset. Kepler's theory of the elliptical orbits of the planets was such; he made and abandoned nineteen false ones before he hit the right. This discovery led to another — that planets describe equal areas in equal times. Newton never framed hypotheses, if we may believe him. But his own grand discovery of the law of gravity as the central force of the system, depends for one of its steps of evidence on his previous discovery that the force of attraction varies as the inverse square of the distance, and this was suggested by him at first as a mere hypothesis; he was able to verify it only by calling in the aid of Kepler's discovery of equal areas in equal times, which latter, as already stated, was itself the result of hypothesis. Had it not been for one hypothesis of Newton, verified by the results of another hypothesis of Kepler, Newton could never have made his own discovery.

A hypothesis, it must be remembered, is any supposition, with or without evidence, made in order to deduce from it conclusions agreeable to known facts. If we succeed in doing this, we verify our hypothesis (unless, indeed, it can be shown that some other hypothesis will equally well suit these facts), and our hypothesis, when verified, ceases to be longer a hypothesis, takes its place as known truth, and in turn serves to explain those facts which would, on the supposition of its truth, follow from it as a cause. It is simply a short-hand process of arriving at conclusions in science. Suppose the problem to be the one already named — to prove that the central force of the solar system is one and the same with *gravity*. Now it may not be easy, or even possible in some cases, to establish the first step or premiss in such a chain of reasoning. The inductions leading to it may not be forthcoming. Hypothesis steps in and supplies the deficiency, by substituting in place of the induction a supposition. Assuming that distant bodies attract each other with a power inversely as the square of the distance,

it proceeds on that supposition, and arrives at the desired conclusion.

In what Cases admissible. — Now this method is always allowable, and strictly scientific, whenever it is possible to verify our hypothesis, *i. e.*, in every case in which it is possible to show that no law but the one assumed can lead to these same results; that no *other* hypothesis can accord with the facts.

In the case supposed, it would not be possible to prove that the same movements might not follow from some other law than the one supposed. It is not certain, therefore, that the moving force of the solar system is identical with gravitation, *merely because* the latter would, if extended so far, produce the same results. In many other cases it *is* practicable; indeed, *in all cases where the inquiry is not to ascertain the cause, but, the cause being already known, to ascertain the law of its action.*

Even in cases where the inquiry is not of this nature, hypothesis is of use in the suggestion of future investigations, and, as such, is frequently indispensable.

View of Mr. Mill. — Nearly every thing which is now theory, was once hypothesis, says Mill. "The process of tracing regularity in any complicated, and, at first sight, confused set of appearances, is necessarily tentative: we begin by making any supposition, even a false one, to see what consequences will follow from it; and by observing how these differ from the real phenomena we learn what corrections to make in our assumption. The simplest supposition which accords with any of the most obvious facts, is the best to begin with, because its consequences are the most easily traced. This rude hypothesis is then rudely corrected, and the operation repeated, until the deductive results are at last made to tally with the phenomena. Let any one watch the manner in which he himself unravels any complicated mass of evidence; let him observe how, for instance, he elicits the true history of any occurrence from

the involved statements of one or of many witnesses. He will find that he does not take all the items of evidence into his mind at once, and attempt to weave them together; the human faculties are not equal to such an undertaking; he extemporizes, from a few of the particulars, a first rude theory of the mode in which the facts took place, and then looks at the other statements, one by one, to try whether they can be reconciled with the provisional theory, or what corrections or additions it requires to make it square with them. In this way, which, as M. Comte remarks, has some resemblance to the methods of approximation of mathematicians, we arrive by means of hypothesis at conclusions not hypothetical."

§ V. — Different Forms of Reasoning.

It remains to treat briefly of the *different forms* of reasoning, as founded in the laws of thought.

How far these Forms fall within the Province of Psychology. — As there are different kinds or modes of reasoning, according to the difference of the subject-matter or material about which our reasoning is employed, so there are certain general forms into which all reasoning may be cast, and which, according to the laws of thought, it naturally assumes. To treat specifically of these forms, their nature, use, and value, is the business of *logic;* but, in so far as they depend upon the laws of thought, and are merely modes of mental activity as exercised in reasoning, they are to be considered, in connection with other phenomena of the mind, by the psychologist. Briefly to describe these forms, and then to consider their value, is all that I now propose. I begin with the proposition, as the starting point in every process of reasoning.

I. Analysis of the Proposition.

What constitutes a Proposition. — All reasoning deals

with propositions, which are judgments expressed. Every proposition involves two distinct conceptions, and expresses the relation between them; affirms the agreement or disagreement of the one with the other. As when I say, Snow is white, the conception of snow is before my mind, and also of whiteness; I perceive that the latter element enters into my notion of snow, and constitutes one of the qualities of the substance so called; I affirm the relation of the two, accordingly, and this gives the proposition enunciated. Every proposition then consists of these several parts, a word or words expressing some conception, a word or words expressing some other conception, a word or words expressing the relation of the two. The words which designate these two conceptions are called the *terms* of the proposition, and, according to the above analysis, there are, in every proposition, always two terms. That term or conception of which something is affirmed, is called the *subject*, that which is affirmed of the same, the *predicate*, and the word which expresses the relation of the two, the *copula*. In the above proposition, snow is the subject, white, the predicate, and is, the copula.

Quality and Quantity.— Propositions are distinguished as to *quality* and *quantity*. The former has reference to the affirmative or negative character of the proposition, the latter to its comprehensiveness. Every proposition is either affirmative or negative, which is called its quality. As to quantity, every proposition is either *universal*, affirming something of the whole of the subject — as, All men are mortal; or else *particular*, affirming something of only a part of the subject — as, Some tyrants are miserable.

Four kinds of categorical Propositions.— We have, then, four kinds of categorical propositions, viz., universal affirmative, universal negative, particular affirmative, particular negative. That is, with the same subject and predicate, it is always possible to state four distinct propositions; as, every A is B, no A is B, some A is B, some A is not B

For the sake of convenience, logicians designate these different kinds of propositions severally by the letters A, E, I, O. Propositions that thus differ in quantity and quality are said to be opposed to each other. Of these, the two universals, A and E, are called contraries; the two particulars, I and O, sub-contraries; the universal affirmative, and the particular affirmative, A and I, also the universal negative and the particular negative, E and O, are respectively subalterns; while the universal affirmative and the particular negative, A and O, as also the universal negative and particular affirmative, E and I, are contradictories.

Rules of Opposition. — The following rules will be found universally applicable to propositions as opposed to each other. If the universal is true, so is the particular. If the particular is false, so is the universal. Contraries are never both true, but may be both false. Sub-contraries are never both false, but may be both true. Contradictories are never both true, or both false, but always one is true, the other false. The truth of these maxims will be evident on applying them to any proposition and its opposites, as for example, to the affirmation, Every man is mortal.

Categorical and hypothetical Propositions. — Propositions may be further distinguished as categorical or hypothetical; the one asserting or denying directly, as, *e. g.*, The earth is round; the other conditionally, — as, If the earth is round, it is not oblong.

Pure, and Modal. — The proposition, moreover, may be either pure or modal, the former asserting or denying without qualification, — as, Man is liable to err; the latter qualifying the statement, — as, Man is extremely or unquestionably liable to err.

II. Analysis of the Syllogism.

Proposition the Link, Syllogism the Chain. — All reasoning admits of being reduced to the form of a syllogism. Having discussed the proposition which forms the material of

groundwork of every connected chain of argument, we are prepared now to examine the syllogism, or chain itself, into which the several propositions, as so many links, are wrought.

Syllogism defined. — A syllogism is an argument so expressed that the conclusiveness of it is manifest from the mere form of expression When, for example, I affirm that all A is B, that all B is C, and that, consequently, all A is C, it is impossible that any one who is able to reason at all, and who comprehends the force of these several propositions taken singly, should fail to perceive that the conclusion follows inevitably from the premises. That which is affirmed, may or may not be *true*, but it is *conclusive*. If the premises are true, so is the conclusion; but whether they are true or not, the argument, as such, is conclusive; nay, even if they are false, the conclusion may possibly be true. For example, Every tyrant is a good man; Washington was a tyrant; therefore, Washington was a good man. Both the premises are false, but the argument, as regards the form, is valid, and the conclusion is not only correctly drawn, but is, moreover, a true proposition. In a word, the syllogism concerns itself not at all with the truth or falsity of the thing stated, but only with the form of stating, and that form must be such, that the premises being conceded, the conclusion shall be obvious and inevitable. All valid reasoning admits of such statement.

Composition of a Syllogism. — Every syllogism contains three propositions, of which two state the grounds or reasons, and are called the premises, the other states the inference from those positions, and is called the conclusion. These three propositions contain three, and only three, distinct terms, of which one is common to both premises, and is called the *middle* term; the others are the extremes, one of which is the subject of the conclusion, and is called the *minor* term; the other the predicate of the conclusion, and is called the *major* term, from the fact that it denotes the class to which the subject or minor term belongs. In the syl

logism, — Every man is mortal; Socrates is a man; therefore, Socrates is mortal, — the three terms are, man, mortal, and Socrates: of these, Socrates, or the subject of the conclusion, is the minor; mortal, or the predicate of the conclusion, is the major; and man, with which both the others are compared, is the middle term.

Major and minor Premiss. — The premiss which contains the *major* term, and compares it with the middle, is called the *major premiss;* that which, in like manner, compares the *minor* term with the middle, is called the *minor premiss.* In the syllogism already given, 'Every man is mortal' is the major premiss; 'Socrates is a man' is the minor premiss.

The Order variable. — The order of the terms in the respective propositions, and even the order of the propositions themselves, is not invariable, but depends on circumstances. In the above proposition, it is immaterial whether I say, Every man is mortal, or, Mortal is every man; it is immaterial whether I state first the major or the minor premiss; nay, it is allowable even to state the conclusion first, and then the grounds and reasons for the same.

III. Laws of Syllogism.

The following rules or maxims will be found applicable to all cases, and may be regarded as laws of the syllogism.

Middle Term unequivocal. — The middle term must not be equivocal. This rule is violated in the following syllogism. Nothing is heavier than lead; feathers are heavier than nothing; therefore, feathers are heavier than lead. The middle term, nothing, is here used in different senses in the two premises.

Middle Term to be distributed. — Essentially the same thing occurs when the middle term is not, at least once, in the premises, used in its most complete and comprehensive sense, or, as the logicians express it, *distributed.* As, for example, when I say, White is a color, the term color is not here distributed, for it properly includes many things be

sides white. If now I introduce into another proposition the same term in a similar manner, as Black is a color, I evidently include under the term, as now used, some part of the class of things denoted by the general word color, which was not included under the same term as first used. The color which is affirmed to agree with black, is not the same color which is affirmed to agree with white. The term, in fact, denotes one thing in the one proposition, and another in the other. A syllogism thus constructed, is invalid. Hence the rule, that the *middle term must be distributed*, or taken in its completeness, to include the whole class which it properly denotes, *at least once in the premises*. This is done either by making it the *subject of an affirmative*, or the *predicate of a negative proposition;* as, All men are mortal, or, No vice is useful. Here the term man in the one case, and the term useful in the other, are each distributed or taken in their completeness. There is no individual to whom the term man can properly be applied, who is not included in the expression, all men, nor is there any useful thing which is not here denied of vice.

What distributed in the Conclusion. — On the same principle, *no term must be distributed in the conclusion which was not distributed in one of the premises*. This rule is violated in the following syllogism, All birds are bipeds; no man is a bird; therefore, no man is a biped. Here the term biped, in the major premiss, is not taken in its completeness, since many creatures besides birds are bipeds. Birds are only one sort of bipeds. In the conclusion, however, the term biped, being the predicate of a negative proposition, is distributed, the whole class of bipeds is spoken of, and man is excluded from the whole class. The syllogism is, of course, invalid.

Law of negative Premiss. — It is further a law of the syllogism, that *from negative premises nothing can be inferred*. Also, that *if one premiss is negative, the conclusion will be negative*.

Law of particular Premiss. — *From two particular premises nothing follows, but if one premiss is particular, the conclusion will be so.*

These rules are too obvious, and too easily verified, to require illustration.

IV. Different Kinds of Syllogism.

Syllogisms differ. — We have mentioned as yet only those properties of the syllogism which universally belong to it. There are differences, however, which require to be noticed, and which constitute a distinction of some importance, presenting, in fact, two distinct kinds of syllogism.

Two Modes of procedure. — There are manifestly two entirely distinct modes of procedure in reasoning. We may infer from the whole to the parts, or from the parts to the whole. The former is called deductive, the latter inductive reasoning. The one is precisely the reverse of the other in method of procedure. Each is a perfectly valid method of reasoning, and each is, in itself, a distinct and valid kind of syllogism. Each requires the other. The deductive is wholly dependent on the inductive for its major premiss, which is only the conclusion of a previous induction, while, on the other hand, the induction is valuable chiefly as preparing the way for subsequent deduction. Each has equal claims with the other to be regarded as a distinct and independent form of syllogism. They have not, however, been so treated by logicians, but, on the contrary, the inductive method has been regarded, almost universally, as a mere appendage of the deductive, an imperfect form of one or another of the several figures of the syllogism deductive. Of this we shall have occasion to speak more fully in the historical sketch.

The two Modes compared. — The precise relation of the two modes will best appear by the comparison of the following syllogisms. The inductive syllogism runs thus: x, y z, are A; x, y, z, constitute B; therefore, B is A.

The deductive runs thus: B is A; x, y, z, constitute B therefore, x, y, z, are A.

The latter, it will be seen at a glance, is the precise counterpart of the other, beginning where the former ends, and exactly reversing the several steps in their order.

The Law of each. — The general law or rule which governs the former, is, What belongs (or does not belong) to all the constituent parts, belongs (or does not belong) to the constituted whole. The law of the latter is, What belongs (or not) to the containing whole, belongs (or not) to all the contained parts.

Application of the inductive Method. — Applying the inductive method to a particular case, we reason thus: Magnets x, y, z, etc., including so many as I have observed, attract iron. But it is fair to presume that what I have observed as true of x, y, z, is equally true of e, f, g, and all other magnets; in other words, x, y, z, do represent, and may fairly be taken as constituting the whole class of magnets; consequently, I conclude that all magnets attract iron. Thus stated, the truth which was at first observed and affirmed only of particular instances, becomes a general proposition, and may, in turn, become the premiss of a process of deduction. Thus, from the general proposition, obtained as now explained by the inductive mode, that all horned animals ruminate, I may proceed, by the deductive mode, to infer that this is true of deer or goats, or any particular species or individual whose habits I have not as yet observed.

V. Different Forms of Syllogism.

The Form of Statement not invariable. — As there are different kinds of syllogism, so also there are different *forms* in which any kind of syllogism may be stated. These forms are not essential, pertaining to the nature of the syllogism itself, but accidental, pertaining merely to the order of announcing the several propositions. It has already been

remarked, in speaking of the general structure of the syllogism, that the order of propositions is not essential. Either premiss may precede, either follow. Nay, we may state *first the conclusion*, and *then the reasons, or grounds*. This latter method, as Hamilton has shown in his *New Analytic of Logical forms*, is perfectly valid, though usually neglected by writers on logic. It is not only valid, but the more natural of the two methods. When asked if Socrates is mortal, it is more natural to say, He is mortal, for he is a man, and all men are mortal, than to say, All men are mortal, he is a man, and therefore, he is mortal. In fact, most of our reasoning takes the first of these forms. The two are designated by Hamilton, respectively, as the *analytic* and *synthetic* syllogism.

Order of Premises may vary. — As to the order of the premises, which shall precede the other, this, too, is quite unessential and accidental. The earlier method, practised by Greek, Arabian, Jewish and Latin schools, was to state first the minor premiss, precisely the reverse of our modern custom.

Order of Terms not essential. — The order of the *terms*, in the several propositions, is also accidental rather than essential. There are several possible and allowable arrangements of these terms with reference to the order of precedence and succession, giving rise to what are called *figures* of the syllogism. These arrangements and figures have usually been reckoned as four; three only are admitted by Hamilton, the fourth being abolished. The first figure occurs when the middle term is the subject of one premiss and the predicate of the other. The second figure gives the middle term the place of predicate in both premises. The third makes it the subject of both.

A further Variation. — There is still another form of statement, in which the terms compared are not, as above, severally subject and predicate, but, in the same proposition, are both subject, or both predicate, as when we say, A and B are equal; B and C are equal; therefore, A and C are

equal. This is a valid synthetic syllogism, though not recognized by logicians previously to the *New Analytic* of Hamilton. It is termed by him the unfigured syllogism.

Hypothetical reasoning not syllogistic. — It has been customary to treat of *hypothetical* reasoning, in its two forms of conditional and disjunctive, as forms or kinds of syllogism. As when we say, if A is B, C is D; but A is B, therefore C is D; or, disjunctively, either A is B, or C is D; but A is not B, therefore C is D. These, however, are not properly syllogisms. The inference is not mediate, through comparison with a common or middle term, but *immediate*, whereas the syllogism is, in all its forms, a process of mediate inference.

Summary of Distinctions. — To sum up the distinctions now pointed out. All inference is either immediate, as in the case of hypothetical reasoning, whether conjunctive or disjunctive, or else mediate, as in the syllogism. The latter may be inductive or deductive; and, as to form, analytic or synthetic, figured or unfigured.

VI. Laws of Thought on which the Syllogism depends.

Statement. — There are certain universal laws of thought on which all reasoning, and, of course, all syllogisms, depend. These laws, according to Hamilton, are the principles of *identity*, of *contradiction*, and of *excluded middle;* from which primary laws results a fourth, that of *reason and consequent.*

Law of Identity, what. — The principle of *identity* compels us to recognize the equivalence of a whole and its several parts taken together, as applied to any conception and its distinctive characters. As, for example, the sameness or equivalence of the notion *man* with the aggregate of qualities or characters that constitute that notion.

Law of Contradiction, what. — The law of contradiction is the principle that what is contradictory is unthinkable;

as, for example, that A has, and yet has not, a given quality, B.

Law of excluded Middle. — The principle of *excluded middle* is this, that of two contradictory notions, we must think one or the other to be true; as, that A either has or has not the quality B.

Law of Reason and Consequent. — From these primary principles results the law of *reason and consequent.* All logical inference is based on that law of our nature, that one notion shall always depend on another. This inference is of two kinds, from the whole to the parts, or from the parts to the whole, respectively called deductive and inductive, as already explained.

Certain Points not included in the preceding Synopsis. — I have presented, as was proposed, in brief outline, a synopsis of the forms of reasoning. For a full treatment of these forms, and the laws which govern them, the treatises on logic must be consulted.

Some things usually considered essential to logical forms, as the *modality* of propositions and syllogisms, and the *conversion* of the other figures of the syllogism into the first, I have not included in the above outline, for the reason that the former does not properly fall within the province of logic, which has to do only with the *form* and not with the *matter* of a proposition or an argument, while, as to the latter, it is only an accidental, and not an essential circumstance, what may be the figure of a syllogism, and it is, therefore, of no importance to reduce the second and third figures to the first.

VII. Use and Value of the Syllogism.

Having considered the various forms which the syllogism may assume, as also the laws or canons which govern it, we proceed to inquire, finally, as to it *use* and *value* in reasoning.

All mediate reasoning syllogistic. — It must be con

ceded. I think, that all *mediate* reasoning, all inference, which is not immediate and direct, but which, in order to reach its conclusion, compares one thing with another, is essentially syllogistic. The greater part of our reasoning processes are of this sort. When fully and explicitly stated, such reasoning resolves itself into some form of syllogism. It is not, as sometimes stated, *a* mode of reasoning, but *the* mode which all reasoning, except such as is direct and immediate, tends to assume. Not always, indeed, is this reasoning fully drawn out and explicitly stated, but all valid reasoning admits of being thus stated; nay, it is not, as to form at least, complete until it is so expressed.

Not always syllogistically expressed. — In ordinary conversation, and even in public address, we omit many intermediate steps in the trains and processes of our arguments, for the reason that their statement is not essential to our being understood, the hearer's mind supplying, for itself, the connecting links as we proceed; just as in speaking or writing, we make many abbreviations, drop out some letters and syllables here and there, in our hasty utterance, and yet all such short-hand processes imply and are based upon the full form; and it would be as correct and as reasonable to say that the fully written or fully spoken word is merely *a* mode of speaking and writing, which, when the grammarian and rhetorician come into contact with common people, they lay aside for the ordinary forms of speech, as to say that syllogism is merely *a* mode of reasoning, which the logician lays aside when he comes out of his study, and reasons with other men.

Chief Value of the Syllogism. — The chief use of the syllogism, I apprehend, however, to be, not in presenting a train of argument for the purpose of convincing and persuading others; for the laws of thought do not require us in such a case to state every thing that is even essential to the argument, but only so much as shall clearly indicate our meaning, and enable the hearer or reader to follow us; but

rather in testing the soundness or detecting the unsoundness of an argument, whether our own, or that of an opponent. For this purpose, an acquaintance with the forms and laws of syllogism may be of great service to the writer and to the orator.

Objection to the Syllogism. — But it is objected to the syllogism that it is of no value in the discovery and establishment of truth, inasmuch as, by the very laws of the syllogism, there can be nothing more in the conclusion than was assumed in the premises. There is, and can be, in this way no progress from the known to the unknown. The very construction of the syllogism, it is said, involves a *petitio principii*. When I say, All men are mortal; Socrates is a man; therefore, Socrates is mortal; the major premiss, it is said, affirms the very thing to be proved; that Socrates is mortal is virtually affirmed in the proposition that *all* men are so. Either, then, the syllogism proves nothing which was not known before, or else the general proposition, with which it sets out, is unwarranted, as asserting more than we know to be true, and, in that case, the conclusion is equally unreliable; in either case nothing is gained by the process; the syllogism is worthless.

Lies equally against all reasoning. — This objection, if valid against the syllogism, is valid against and overthrows not the syllogism merely, but all reasoning of whatever kind, and in whatever form. It is an objection which really applies, not to the form which an argument may happen to assume, but to the essential nature of reasoning itself. As was shown in discussing the nature of the reasoning process, all reasoning is, in its nature, essentially analytic. It is the evolution of a truth that lies involved in some already admitted truth. It simply develops, draws out, what was therein contained. Its starting-point must always be some admitted position, its conclusions must always be some inevitable necessary consequence of that admission. The mortality of Socrates is, indeed, involved and contained in

the general proposition which affirms the mortality of all men, and so, also, is every inferred truth contained in that from which it is inferred.

Conclusion not affirmed in the Premiss. — But while *contained*, it is not *affirmed*, in the premiss. To say that all men are mortal, is not to say that Socrates is so, but only to say what implies that. The conclusion which draws out and affirms what was involved, but not affirmed, in the premiss, is an advance in the order of thought, a step of progress, and not merely an idle repetition, and the syllogism, as a whole, moves the mind onward from the starting-point to a position not otherwise explicitly and positively reached. It is a movement onward, and not merely a rotation of the wheel about its own axis.

The Form accidental. — In so far as the objection of *petitio principii* relates, not to the *nature* of reasoning, but only to its *form*, this is entirely a matter of accident, and does not pertain to the syllogism as such. As was shown in treating of the different forms of syllogism, the order of the propositions is not essential. We may, if we like, state the conclusion first, and then the reasons, as, All A is C, for all A is B, and all B is C; or we may state the same thing in a different form, as, A and B are equal; B and C are equal; therefore, A and C are equal. Both are syllogisms, the former *analytic*, the latter *unfigured*, but to neither does the objection of *petitio principii* apply so far as regards the mere form of statement. Nor does it apply to that form of syllogism in which the major premiss is a singular proposition, as, *e. g.*, Cæsar was fortunate; Cæsar was a tyrant; therefore, a tyrant may be fortunate. Here the subject of the conclusion is not formally contained in that of the major premiss, as Socrates is contained in the expression, all men, a part of the whole.

Objection inapplicable to the inductive Syllogism. — Nor does the objection apply again to the *inductive* syllogism, in which the conclusion is more comprehensive than the pre

miss. The objection applies, in fact, only to the deductive syllogism, and to that only in its synthetic form, and to that only as figured, and as presenting, in its major premiss, other than a singular proposition.

Major Premiss, whence derived. — But whence, it may still be asked, comes the general proposition which every deductive syllogism contains, whether analytic or synthetic, the proposition *e. g.*, that all men are mortal? Whether this be stated before or after the conclusion is a mere matter of form; but what is our authority for stating such a proposition at all? How do we know that which is here affirmed?

I reply, it is a truth reached by previous induction. Every deduction implies previous induction. I observe the mortality of individuals, x, y, z. I find no exceptions. My observation extends to a great number of cases, insomuch that I am authorized to take those cases as fairly representing the whole class to which they belong. I conclude therefore, that what I have observed of the many is true of the whole. So comes the general proposition, All men are mortal.

Authority for this Belief. — But what reason have I to believe that what is true of the many is true of the whole and how do I know this? I reply, I do not know it by observation, nor by demonstration; my belief of it rests upon, and resolves itself into, that general law or constitution of the mind according to which I am led to expect, under like circumstances, like results, in other words, that nature acts uniformly. This is my warrant, and my only warrant, for the inference, that what I have observed in many cases is true in others that I have not observed.

A Difficulty suggested. — But in what manner, now, shall this mere belief of mine, for it is nothing more, come to take its place as a general proposition, as positive categorical affirmation, in the syllogism whose major premiss reads, All men are mortal?

A law of the mind may be a sufficient explanation of my belief; but the science of syllogisms cannot take cognizance of laws of the mind, as such, and has nothing to do with beliefs, but is concerned only with the *forms* in which an argument shall be presented. Those forms must be conclusive. How shall I convert, then, my conjecture, my plausible belief, in the present case, into that general positive affirmation which alone will answer the demands of the syllogism?

The Process explained. — The process is this: The precise result of my observation stands thus — x, y, z, are mortal. But I know that x, y, z, are so numerous as fairly to represent the class to which they belong. On the strength of this position, the inductive syllogism takes its stand, and overlooking the fact that there are some cases which have not fallen under my observation, *positively affirms* what I only *believe* and *presume* to be true, and the argument then reads, x, y, z, are mortal But x, y, z, are all men, therefore, all men are mortal.

The general proposition thus reached by induction becomes, in turn, the major premiss of the deductive syllogism, which concludes, from the mortality of all men, that of Socrates in particular.

Position of Mill. — An able and ingenious writer, Mr. Mill, in his treatise on logic, takes the ground that we have no need to embody the result of our observations in the form of a general proposition, from which again to descend to the particular conclusion, but that, dispensing with the general proposition altogether, and with the syllogism of every kind and form, we may, and virtually do, reason directly from one particular instance to another, as, *e. g.*, x, y, z, are mortal; therefore, f, g, h, are so. "If from our experience of John, Thomas, etc., who were once living, but are now dead, we are entitled to conclude that all human beings are mortal, we might surely, without any logical inconsequence, have concluded at once, from those instances, that the Duke of Wellington is mortal. The mortality of

John, Thomas, and company, is, after all, the whole evidence we have of the mortality of the Duke of Wellington. Not one iota is added to the proof by interpolating a general proposition." Our earliest inferences, he contends, are precisely of this sort. The child burning his fingers, reasons thus: "That fire burnt me, therefore this will." He does not generalize, "All fire burns; this is fire; therefore, this will burn." The only use of a general proposition, Mill contends, is simply to furnish collateral security for the correctness of our inference.

Remarks upon this View. — This view sweeps away at once, and forever, all mediate reasoning, and shuts us up to the narrow limits of such inference alone as proceeds from a given instance directly to a conclusion therefrom. No doubt we do sometimes reason thus. But it is a reasoning, the conclusiveness of which is not, and cannot be made, apparent by any form of statement. If called in question, we can only say, I think so, or, I believe so. The mortality of John does not prove the mortality of Thomas. It may not even render it probable; it is only when I have observed such and so many cases as to leave no reasonable doubt that the property in question is *a law of the class as such*, and *not a mere accident of the individual*, that I am really warranted in the belief that any individual, not as yet observed, will come under the same law, because belonging to the same class. To reason in this way is to generalize; whatever process stops short of this, stops so far short of any and all conclusive evidence of the truth of what it affirms.

VIII. Historical Sketch of the Science of Logic.

Indian Logic earlier than that of Aristotle. — It is of the Greek logic, that of Aristotle, that we usually speak when we have occasion to refer to this science. It is usually attributed to Aristotle, indeed, as his peculiar glory, that he should at once have originated, and brought to perfection, a science which, for more than two thousand years,

has received few alterations, found few minds capable of suggesting improvements. Recent labors of Orientalists have, however, brought to light the fact that in India, long before the palmy days of Grecian philosophy, logic was pursued with vigor as a study and science. The Nyâya of Gotama holds, in the Indian systems of philosophy, much the same place that the Organon of Aristotle holds with us. The two, however, are quite independent of each other. Aristotle was no disciple of Gotama.

Aristotle's Logic not perfect. — Nor, on the other hand, was the logic of Aristotle by any means perfect, as it is often represented. Its imperfections are many, and have been, for the most part, faithfully copied by his disciples.

Aristotle the first Greek Logician. — Previous to Aristotle there had been nothing worthy the name of science in this department of philosophy. The Sophists had made some attempts at logic, but of no great value. Plato had not devoted much attention to it. Aristotle himself says, in the close of his Organon, that he had worked without models or predecessors to guide him.

Subsequent Writers. — The work of Aristotle is in six parts, the first four treating of logic pure, the remaining two of its application. The school of Aristotle carried the cultivation and study of logic to a high degree. Theophrastus and Eudemus labored assiduously as commentators on their master, but made no change in the essential principles of the system. The Stoics, however, gave logic more attention and honor, more time and care, than did any other of the rival schools of philosophy. They sought to enlarge its boundaries and make it an instrument for the discovery of truth. It held the first place in their system, ethics and physics ranking after it.

St. Hilaire is wrong in saying that with Epicurus logic was of little consideration, that sensation was the source and criterion of thought with that school. The Epicurean

logic was a peculiar system, differing from the Aristotelian, and very little known in the subsequent centuries.

In Alexandria the logic of Aristotle was in great honor, and had numerous commentators in the first centuries of the Christian era.

Introduced into Rome.—For a time the original works of Aristotle were lost. They lay buried in an obscure retreat whither they had been carried for safe preservation, and no one knew what they were. Sylla, capturing the city, brought them to Rome, where they were discovered to be the works of the great master, and Cicero gives them, with some labor and learning, to the public. But the Roman mind never mastered the logic of Aristotle. In all Roman philosophy, says St. Hilaire, there is scarcely a logician worthy of the name.

For several centuries, if not in Rome, yet in Alexandria and Athens, in Greece and in Egypt, the logic of Aristotle continued to be assiduously cultivated.

Logic in the Middle Ages. — It was in the middle ages, however, that logic received its chief cultivation and its highest honors. Aristotle was for some six centuries almost the only teacher of the human mind, and the Organon was the foundation of his knowledge. Nor during the irruption of the northern hordes, and the revolutions of society, and empire, and human manners, which followed, did the philosophy and logic of Aristotle pass out of sight or out of mind. It seemed impossible for any revolution of empire or of time to shake its foundations or break its sceptre over the human mind. In the seventh century, Isidore of Seville, and Bede the Venerable, gave it their labors and renown. In the eighth, Alcuin introduced it into the court of Charlemagne. In the twelfth, Abelard, and the controversy between the Realists and Nominalists, gave this science still more importance.

Logic in the Arabian Schools. — Meanwhile, the Mohammedans had been in advance of the Christians in the study of this science. The Arabs had inherited the learning

of antiquity, and had carried the cultivation of the peripatetic philosophy to a high degree of perfection more than a century before it had received the homage of the West. From Arabia it passed, with the march of conquest, into Spain, and some of the ablest commentators Europe has produced, on the works of Aristotle, have been the Moors of Spain.

Continuance of Aristotle's Dominion. — The Crusades tended only to enlarge the sphere of this influence. Such men as Albert the Great, and Thomas Aquinas, became, in the thirteenth century, expounders of Aristotle. Not till the sixteenth century did this long dominion over the human mind show symptoms of decadence.

The Reformers. — Luther, among the Protestant reformers, sought to banish logic from the schools; but it was retained, and in the Protestant universities was still professed.

Attacks upon Aristotle. — It now became the fashion, however, in certain quarters, especially among the mystics in the Catholic communion, to decry Aristotle, and each original genius took this way to show his independence. Ramus is noted among these. Bacon followed in this track, and did little more than repeat the invectives of his predecessors. He attempted to set aside the syllogism, and put in its place induction.

Induction, however, in some form, is as old as the syllogism. From Plato and Aristotle downward, a thousand philosophers had availed themselves of this method of reasoning, and had also stated and defended it.

The Moderns. — From Bacon and Descartes till our day logic has been in process of decadence. Locke condemns it. Reid and the Scotch school ridicule its pretensions. Kant and Hegel, on the other hand, give it a due place in their systems — the latter especially; while in France, it has admirers in St. Hilaire, Cousin, and others of like genius; and in Edinburgh, the great Hamilton devoted to it the powers of his unrivalled intellect.

Logic of Hamilton. — As no writer, since the days of Aristotle, has done more to complete and perfect the science of reasoning, than Sir William Hamilton, it seems due that even so brief a sketch of the history of logic as this present, should indicate, at least, the more important changes which his system introduces. Whatever may be thought of some of his views and proposed reforms in this ancient science and sanctuary of past learning, it is not too much to say, that no writer on logic can henceforth present a claim to be considered, who has not, at least, thoroughly mastered and carefully weighed these views and proposed changes, even if he do not adopt them. They are, moreover, for the most part, changes so obviously demanded in order to the completeness of the science, and so thorough-going withal, that they are destined, it would seem, to be sooner or later adopted, and if adopted, to work a radical change in the whole structure of this ancient and time-honored science.

I shall attempt nothing more, in this connection, than, in the briefest manner, to enumerate some of the more important of these improvements.

Assigns Induction its true Place. — Hamilton is the first, so far as I know, to elevate to its true place the inductive method of reasoning, making it coördinate with the deductive, and assigning its true character and value as a form of syllogism.

Recognizes the analytic Syllogism. — He is the first to bring to notice the claims of the *analytic* syllogism to a distinctive place and recognition in logic; a form of reasoning, which, however natural and necessary, and in use almost universal, had been strangely overlooked by logicians from Aristotle down.

Rejects Modality. — He strenuously and consistently rejects the modality of the proposition and the syllogism, on the ground that logic is not concerned with the character of the matter, whether it be true or false, necessary or contingent, but only with the form of statement, and consequently,

all distinctions founded on the truth or falsity, the necessity or contingence of the matter, are utterly irrelevant to the science — a principle admitted by others, but not previously carried out to its true results.

Doctrine of Figure. — He shows that the figure of the syllogism is a matter accidental, rather than essential, that it may be even entirely *unfigured;* abolishes the fourth figure as superfluous; and sets aside, as quite useless and unnecessary, the old laborious processes of reducing and connecting the several figures to the first.

Rejects hypothetical Syllogism. — He throws out of the syllogism entirely, the so-called *hypothetical* forms, both conjunctive and disjunctive, as reducible to *immediate* inference, and not, therefore, to be included under syllogistic reasoning, which is always mediate.

The single Canon. — He reduces the several laws and canons of the figured syllogism to a single comprehensive canon.

Quantification of the Predicate. — But the most important discovery made by Hamilton in this science, is the quantification of the predicate. The predicate is always a given quantity in relation to the subject, and that quantity should be stated. This, logicians have always overlooked, quantifying only the subject, as, All men, Some men, etc., but never the predicate. Fully quantified, the proposition reads, All man is *some* animal, no animal, etc., *i. e.*, some sort or species of animal. This doubles the number of possibl propositions, giving eight in place of four, and gives a cor responding increase in the number of words. These eight propositions are shown to be, not only possible, but admissible and valid. They are thus enumerated and namod:

	AFFIRMATIVE.	NEGATIVE.
I. *Toto-total:*	All A is all B.	Any A is not any B.
II. *Toto-partial:*	All A is some B.	Any A is not some B.
III. *Parti-total:*	Some A is all B.	Some A is not any B.
IV. *Parti-partial:*	Some A is some B.	Some A is not some B.

Reference. — For a more full and exact account of Hamilton's system, the reader is referred to the article on logic in the volume of *Discussions on Philosophy and Literature*, by Sir W. Hamilton; also, to "*An Essay on the New Analytic of Logical Forms*," by Thomas Spencer Baynes, L. L. B. On the history of logic in general, see *Dictionnaire des Sciences Philosophiques* — Article *Logique*, by Barthèleme St. Hilaire, Professor of Philosophy to the College of France, member of the Institute, etc., etc.; also, Blakey's *History of Logic*. The *Memoir* of St. Hilaire, on the logic of Aristotle, is one of the best works of modern times on the subject of which it treats.

INTELLECTUAL FACULTIES

PART FOURTH.

THE INTUITIVE POWER.

INTUITIVE POWER.

CHAPTER I.

EXISTENCE AND NATURE OF THE INTUITIVE FACULTY.

Office of this Power. — In our analysis of the powers of the mind, one was described as having for its office the conception of truths that lie apart from the region and domain of sense — first principles and primary ideas, fundamental to, and presupposed in, the operations of the understanding, yet not directly furnished by sense. They are awakened in the mind on occasion of sensible experience, but it is not sensible experience which produces them. On the contrary, they spring up in the mind as by intuition, whenever the fitting occasion is presented. We must attribute their origin to a special power of the mind by virtue of which, under appropriate circumstances, it conceives the truths and ideas to which we refer. This power we have termed the *originative* or *intuitive* faculty.

Specific Character. — In its specific character and function it is quite distinct from any of the faculties as yet considered It does not, like the presentative power, bring before us, in direct cognizance, sensible objects; nor does it, like the representative faculty, replace those objects to thought, in their absence. It neither presents, nor represents, any object whatever. It forms no picture of any thing to the mind's eye. It is a power of simple conception; and yet it differs in an important sense from the other conceptive powers.

and that is, that it is not *reflective* but intuitive in its action. Its data are conceptions, but conceptions necessary and intuitive, seen at a glance, not the results of the reflective and discursive process. These data are ideas of reason, rather than notions of the understanding, or processes of reflection. There is no sensible object corresponding to these ideas. We do not see, or hear, or feel, or by any means cognize, any thing of the sort; nor can we form a picture, or represent to ourselves any such thing as, *e.g.*, time, or space, or substance, or cause, and the like. They are conceptions of the mind, and yet we conceive of them as *realities*. We cannot think them the mere creations and figments of the brain. And in this respect, again, they differ from the notions of the understanding — those classes and genera which we know to be the mere creations of the mind.

Existence of such a Faculty. — If any are disposed to doubt the existence of the faculty under consideration, as a distinct power of the mind, we have only to ask, whence come these ideas? They are given, not by perception, evidently, nor by memory, nor by imagination, for they fall not within the sphere of any of these faculties, that is the sphere of sense. They relate not to the sensible, but to the super-sensible.

Nor are they the result of abstraction, as might at first appear. Particular instances being given, certain times, certain spaces, certain substances, certain instances of right and wrong conduct — it is the province of the faculty now named, to form, from these concrete ideas, the abstract notions of time, space, etc. But whence comes, in the first instance, the concrete idea? Whence comes the notion of *a* time, *a* space, *a* substance, *a* cause, *a* right or wrong act? Abstraction cannot give these. Manifestly, however, we have a faculty of forming such conceptions, of perceiving such truths and realities; and as manifestly, it is a faculty distinct from any hitherto considered. There are such realities as time, space, substance, cause, right and wrong, etc.,

The mind takes cognizance of them as such, knows them, and knows them to be realities; has, therefore, the faculty of knowing such truths. We may call it, if we please, the faculty of original and intuitive conception.

Generally admitted. — The existence of ideas not directly furnished by sense or experience, and not given by the faculties whose office it is to deal with objects of sense, is a doctrine now generally admitted by the most eminent philosophers. Nor is it a doctrine peculiar to any one school. Under different names it is the doctrine substantially of Reid, Stewart, Brown, Price, among English metaphysicians; Kant and his disciples in Germany; Cousin, Jouffroy and others in France. It is denied by Hobbes, Condillac, Gassendi, and others of that class who trace all our ideas to sense as their ultimate source and parentage.

Opinion of Locke. — The position of Locke respecting this matter, has been the subject of much controversy. By a certain class of writers he has been regarded as denying the existence of any and all ideas not derived from sense, and has been classed with the school of Hobbes, Condillac, etc. His philosophy has been regarded by many as of doubtful and dangerous tendency, as leading to the denial of all truth and knowledge not within the narrow domain of sense, and so conducting to materialism and skepticism. This can by no means be fairly charged upon him, nor upon his philosophy. He held no such views, nor are they implied or contained in his doctrine. Locke, indeed, takes the ground that all our ideas may be traced ultimately to one of two sources, sensation or reflection; the one taking cognizance of external objects, the other of our own mental operations: and that, whatever other knowledge we have not given directly by these faculties, is produced by adding, repeating, and variously combining, in our own minds, the simple ideas derived from these sources. In this process, however, of adding, combining, etc., he really includes what we prefer to designate as a separate faculty of the mind,

and by another name. He distinctly recognizes the existence of the ideas which we attribute to this faculty — ideas of space, power, etc. — and gives a clear, and for the most part correct account of their origin. The mind, he says, observes what passes without — the changes there occurring; it reflects also on what passes within — the changes of its own ideas and purposes; it concludes that like changes will be produced in the same things, under the same circumstances, in future; it considers the possibility of effecting such changes, and so comes by the idea of *power*. In this Locke really includes essentially what we mean by suggestion or original conception. Experience, it is universally admitted, furnishes the occasion, suggests the idea, must precede as the indispensable condition of the mind's having that idea, and is, at least in this sense, the source of it, that it suggests the idea to the mind. All this, Locke fully admits, while, at the same time, he fails to draw the dividing line clearly between the ideas of sense and those in question.

Objections to the term Suggestion. — The name original suggestion has been commonly applied, of late, especially in this country, to designate the faculty now under consideration. It is so used by Professor Upham, and by Dr. Wayland. It is liable, however, to serious objections. The term suggestion does not seem to me to express the peculiar characteristic, the distinctive element and office of this faculty. It is not peculiar to the ideas now in question, that they are *suggested* to the mind; many other ideas, all ideas, in fact, are suggested by something. This class of our thoughts, therefore, is no more entitled to that name than any other class. Nor is it peculiar to this class that they are *original* suggestions. The mind has many other equally original ideas that are likewise suggestions from things without, or from its own operations — mere fancies many of them, imaginations. We need to distinguish, in this case, the merely fanciful, the ideal, from the real. The terms intuitive and intuition, while they imply the reality of the

thing perceived, indicate, also, the immediateness of the process.

More serious Objection. — But there is a still further and more serious objection to the term suggestion as thus employed. The word does not, and cannot, with propriety, be made to denote what is now intended. It has a transitive significance, and cannot be made to denote a purely subjective process. Objects external suggest certain ideas to my mind. . I suggest ideas to other minds. The faculty of suggestion lies, properly, not with the mind that receives the suggestion, but with the mind or object that gives it. But when we say the mind has the faculty of original suggestion, we do not mean that it has the power of suggesting original ideas to other minds; we refer to that power of the mind by which, in virtue of its constitution, certain ideas, not strictly derived from sense, are awakened in it when the occasion presents itself. We intend not a power of suggesting, but rather of receiving suggestions, a power of *conceiving* ideas, a power of original and intuitive conceptions. To say that the mind suggests to itself ideas of space, time, etc., is a singular use of terms. I understand what is meant by suggesting ideas to others, and what it is to receive suggestions from others, and to have ideas suggested by events, occurrences and objects without, and how one thought may, by some law of association, suggest another. But how the mind suggests ideas to *itself*, is not so clear. A man, in a fit of abstraction, talks to himself, but whether he suggests ideas to himself in that way, so that he finds his own conversation instructive and profitable, may admit of question. The truth is, the idea is suggested, not *by* the mind, but *to* the mind — suggested from without. The mind has the power of conceiving certain ideas, which are awakened or excited in it by the occasion which presents itself. To call this faculty a faculty of suggestion, is simply a misnomer.

The true Doctrine. — All we can truly say, is, that the idea is awakened or called up in the mind when the occasion

presents, is suggested *to* it, not by it, suggested by the occasion, and not by the mind itself. The mind has the idea within, has, moreover, the faculty of *conceiving* the idea, is so constituted, that, under certain circumstances, in view of what it observes without, or is conscious of within, the given idea is naturally and universally awakened in it; but the *source* of the suggestion lies not within the mind itself, and is not to be confounded with the mind's faculty of conception.

Use of the term by Reid and others. — Dr. Reid has been referred to as authority for the use of the word suggestion to denote the faculty in question. Dr. Reid makes use of the word, but not in the sense now intended, not to denote a specific faculty of the mind, coördinate with perception, memory, imagination, etc., not, in fact, as a faculty at all. He refers to the well known fact, that ideas are suggested to the mind by objects and events without, and by the sensations thus awakened; as, *e. g.*, a certain sound suggests the passing of a coach in the street. So, also, one idea or sensation will suggest another. He uses the term to denote the suggestion of one thing *to* the mind *by* another thing, and not to denote a power in the mind of suggesting things to itself. This is the correct use, and was not original with Reid. Berkley had used the term in the same way before him. Locke had used the word *excited*, in the same sense. The idea expressed by these terms, and the use of the same or similar terms by which to express it, may be traced back as far, at least, as to the Christian Fathers. St. Augustine so uses it. Reid expressly applies the term to the perception of external objects, as, *e. g.*, certain sensations suggest the notion of extension and space. This is correct use.

The Facts in the Case. — The truth is, things exist thus and thus, and we are constituted with reference to them as thus existing. Sense and experience inform us of these existences and realities. Some of them are objects of direct

perception by the senses, as matter and its qualities. Some of them are not directly objects of perception, but are suggested to the mind by the operations of sense, and are intuitively perceived by the mind, and recognized as truths and realities when thus suggested, as time, space, substance, cause, the right, the wrong, the beautiful, etc.

The mind has the faculty of receiving and recognizing such truths and realities as thus suggested; and this faculty we call the power of *original and intuitive conception.*

These Ideas of internal Origin, in what Sense. — It has been customary of late, especially in our country, to speak of the class of ideas now referred to as of *internal origin*, in distinction from other ideas, derived more directly from sense, and which are consequently designated as of external origin. As it is desirable to be exact in our use of terms, it may be well to inquire in what sense any of our ideas are of external, and in what sense of internal origin, and wherein the ideas, now under consideration, differ from any others in respect to their source.

Ideas of external Origin. — A large class of our ideas evidently relate to objects of sense, objects external and material, of which we take cognizance through the senses. Such ideas may be said to be of external origin, inasmuch as they relate to things without, and are dependent on the external object as the indispensable condition of their development. Were it not for the external object producing the sensation of color or of hardness, I should not have the idea of redness or of hardness; were it not for the external object resisting my movements, I should not get the idea of externality. The idea is, in these cases, dependent on, and limited by, the sensation or the perception. They correspond as shadow and substance. The idea of resistance, and the perception of it, the idea of sound or color, and the sensation of it, are coëxtensive, synchronous, and, as to contents, identical.

These, in a Sense, internal. — In another sense, however,

even these ideas are of internal origin, that is, they are the mind's own ideas; they spring up in the mind, and not out of it; they are, as ideas, strictly internal states, affections, acts of the mind itself. Take away intelligence, reason, the light divine, from the soul of man, and the external objects may exist as before, and produce the same effect on the organs of sense, but the ideas no longer follow. The physical organs of the idiot are affected in the same way by external objects as those of any other person, but he gets not the same ideas. These, it is the office of the mind to produce and fashion for itself out of the occasion and material furnished by sense. And this is as true of ideas relating to external objects as to any other.

Sensation an internal Affection. — It may even be said of this class of ideas, that their *suggestion* is of internal origin. The immediate occasion of the mind's having the idea of extension, weight, hardness, color, etc., is not the existence of the object itself, possessing such and such qualities, but the impression produced by the object and its qualities on the sense; in other words, the sensation awakened in us This it is which awakens and calls forth in the mind the idea of the external object. Were there, for any reason, no sensation, then the objects might exist as now, but we should have no idea of them. But sensation is an internal affection, revealed by consciousness, and the ideas awakened by it and dependent on it, are immediately of internal origin, though mediately dependent on some preceding external condition and occasion.

Ideas of internal Origin. — If we examine, now, the ideas of internal origin, so called, furnished by the faculty of original and intuitive conception, we find that, while they do not directly relate to objects of sense external and material, they nevertheless depend, in like manner, on some preceding operation of sense as the occasion of their development. Observation of what goes on without, or consciousness of what goes on within furnishes the occasion, as all admit, on

which these ideas are awakened in the mind. The idea of time, *e. g.*, is connected with the succession of events, external or internal — things without and thought and feeling within following each other — which succession is matter of observation or of consciousness. The idea of space is connected with the observation or sensation of body as extended. The idea of beauty and deformity is awakened by the perception of external objects as possessing certain qualities which we thus designate. The idea of right and wrong in like manner connects with something observed in human conduct. So of all ideas of this class. They are not disconnected with, nor independent of, the appropriate objects of observation and consciousness. These objects must exist, these occasions must be furnished, as the *indispensable condition* of the existence of the idea in the mind. Dispense with the succession of events or the observation of it, and you dispense with the idea of time in the human mind.

Conclusion. — So far as regards the origin of the ideas in question, it is not easy to draw a dividing line, then, between the two classes, marking the one as *external*, the other as *internal*. Both are of external origin, and equally so, in this sense — that they both depend, and equally depend, on some previous exercise of sense as the occasion and condition of their development. Both are of internal origin, in another sense — that they are both awakened in the mind — are both the product of its own activity.

Difference lies in what. — The difference is not so much that of externality or internality of origin, as it is a difference of character. The one relates to objects of sense, which can be seen, heard, felt; the other to matters not less real, not less obvious, but of which sense does not take direct cognizance. In either case they spring from the constitution and laws of the mind. Such is my constitution that external and material objects, affecting my senses, furnish me ideas relating to such objects. And such is my

constitution that certain relations and qualities of things not directly cognizable by sense, and certain realities and facts of an æsthetic and moral nature, likewise impress my mind, and thus awaken in me the idea of such relations and realities. The objects, the relations, the realities, exist, they are perceived by the mind, and thus the first idea of them is obtained. Color exists, and the eye is so constituted as to be able to perceive it, and thus the idea of color is awakened in the mind. So right and wrong exist, and the mind is so constituted as to be able to perceive and recognize their existence, and thus the idea of right is awakened in the mind. The faculty we call perception in the one case, original conception in the other.

CHAPTER II.

TRUTHS AND CONCEPTIONS FURNISHED BY THIS FACULTY

§ I. — Primary Truths.

Primary Truths and Primary Ideas as distinguished. — The faculty in question may be regarded as the source of primary beliefs, truths, cognitions, intuitively *perceived*, and also of primary and original conceptions, notions, ideas, also intuitively *conceived*.

The difference between a conception or idea, and a belief or truth, is obvious. The notion of existence, and the knowledge or belief that I, myself, exist, are clearly distinguishable. The idea of cause, and the conviction that every event has a cause, are distinct mental states. The one is a primitive and intuitive conception, the other a primitive and intuitive truth. Every primary truth involves a primitive and original conception.

Existence of first Truths. — All science and all reasoning

depend ultimately on certain first truths or principles, not learned by experience, but prior to it, the evidence and certainty of which lie back of all reasoning and all experience. Take away these elementary truths, and neither science nor reasoning are longer possible, for want of a beginning and foundation. Every proposition which carries evidence with it, either contains that evidence in itself, or derives it from some other proposition on which it depends. And the same is true of this other proposition, and so on forever, until we come, at last, to some proposition which depends on no other, but is self-evident, a first truth or principle. Whence come these first principles? Not of course from experience, for they are involved in and essential to all experience. They are native or *à priori* convictions of the mind, instinctive and intuitive judgments.

Existence of first Truths admitted. — The existence of first truths or principles, as the basis of all acquired knowledge, has been very generally admitted by philosophers. They have designated these elementary principles, however, by widely different appellations. By some, they have been termed *instinctive* beliefs, cognitions, judgments, etc., an appellation mentioned by Hamilton as employed by a very great number of writers from Cicero downward, including, among the rest, Scaliger, Bacon, Descartes, Pascal, Leibnitz, Hume, Reid, Stewart, Jacobi. Others, again, have termed them *à priori* or *transcendental* principles, cognitions, judgments, etc., as being prior to experience, and transcending the knowledge derived from sense. So Kant and his school termed them. By the Scotch writers they have been termed, also, principles of *common sense*, in place of which expression Stewart prefers the title, *fundamental laws of human belief.*

Criteria of primary Truths. — It becomes an important inquiry, in what manner we may recognize and distinguish first truths from all others. Besides common consent, or universality of belief on the part of those who have arrived at years of discretion, *Buffier* relies, also, upon the following,

as criteria of first principles; that they are such truths as can neither be defended nor attacked by any propositions, either more manifest or more certain than themselves; and that their practical influence extends even to those who would deny them. Reid gives, among other criteria, the following: consent of ages and nations; the absurdity of the opposite; early appearance in the mind, prior to education and reasoning; practical necessity to the conduct and concerns of life. *Hamilton* gives the following as tests or criteria of first truths: 1. *Incomprehensibilty.* — We comprehend that the thing is, but not *how* or *why* it is. 2. *Simplicity.* — If the cognition or belief can be resolved into several cognitions or beliefs, it is complex, and so, no longer original. 3. *Necessity, and consequent universality.* — If necessary, it is universal, and if absolutely universal, then it must be necessary. 4. *Comparative evidence and certainty.*

Summary of Criteria. — The following may be regarded as a summary of the more important criteria by which to distinguish primary truths from all others.

a. As first truths, or primary data of intellegence, they are, of course, not derived from observation or experience, but are prior and necessary to such experience.

b. They are *simple* truths, not resolvable into some prior and comprehending truth from which they may be deduced.

c. As simple truths, they *do not admit of proof*, there being nothing more certain which can be brought in evidence of them.

d. While they do not admit of proof, *the denial of them involves us in absurdity.*

e. Accordingly, as simple, and as self-evident, they are universally admitted.

Enumeration of some of the Truths usually regarded as primary. — Different writers have included some more, some fewer, of these first principles in their list; while no

one has professed, so far as I am aware, to give a complete enumeration of them. Such an enumeration, if it were possible, would be of great service in philosophy. The following have been generally included among primary truths by those who have attempted any specification, viz.; our personal existence, our personal identity, the existence of efficient causes, the existence of the material world, the uniformity of nature; to which would be added, by others, the reliability of memory, and of our natural faculties generally, and personal freedom or power over our own actions and volitions.

Correctness of this Enumeration. — That the truths now specified are in some sense primary, that they are generally admitted and acted upon, among men, without process of reasoning, and that, when stated, they command the universal and instant assent of even the untaught and unreflecting mind, there can be little doubt. Whether, in all cases, however, they come strictly under the rules and criteria now given; whether, for example, our own existence and identity are primary data of consciousness; or whether, on the contrary, they are not *inferred* from the existence of those thoughts and feelings of which we are directly conscious, as, for example, in the famous argument of Descartes, *Cogito, ergo sum*, may admit of question.

§ II. — Intuitive Conceptions.

Of the results or operations of the faculty under consideration, we have considered, as yet, only that class which may be designated as primary *truths*, in distinction from primitive or intuitive *conceptions*. To this latter class let us now direct our attention.

Proposed consideration of some of the more important. — Without undertaking to give a complete list of our original or intuitive conceptions, there are certain of the more important, which seem to require specific consideration. Such

are the ideas of space, time, identity, cause, the beautiful, the right — ideas difficult to define and explain, but, on that account, requiring the more careful investigation. Let us, then, take up these conceptions one by one, and inquire more particularly into their nature.

I. SPACE.

Subjective View. — What is space? Is it a mere idea, a mere conception of the mind, or has it reality? This is a question which has much perplexed philosophers. Kant and his school regard both time and space as merely subjective, mere conceptions or forms which the mind imposes upon outward things, having no reality, save as conceptions, or laws of thought.

Opposite View. — On the other hand, if we make space a reality, and not a mere conception, what is it, and where is it? Not matter, and yet real, a something which exists, distinct from matter, and yet not mind. Pressed with these difficulties, some distinguished and acute writers have resolved time and space into qualities of the one infinite and absolute Being, the divine mind. Such was the view of Clarke and Newton, a view favored also by a recent French writer of some note — C. H. Bernard, Professor of Philosophy in the Lycée Bonaparte.

A middle Ground. — These must be regarded as, on either hand, extreme views. But is there a middle ground possible or conceivable? Let us see. What, then, is the simple idea of space? What mean we by that word?

Idea of Space. — When we contemplate any material object, any existence of which the senses can take cognizance, we are cognizant of it as *extended, i. e., occupying space*, nor can we possibly conceive of it as otherwise. The idea of space, then, is involved in the very idea of extended substance, or material existence, given along with it, impossible to be separated from it. We may regard it, therefore, as *the condition or postulate of being, considered as material*

existence, possessing extension, etc. The idea of it is essential to the idea of matter, the reality of it to the reality of matter; for if there were no space, there could be no extension in space, and, without extension, no matter.

Not a mere Conception. — Is space, then, a mere conception of the mind, merely subjective? Unquestionably not. It is not, indeed, a *substance* or *entity*, it has no *being*. It is not matter, for it is, itself, the *condition* of matter; it is not spirit, for then it were intelligent. It is not an *existence*, then, strictly speaking, not a thing created, nor is it in the power of deity either to create or to annihilate it, for creation and annihilation relate only to *existence*. And yet space is a *reality*, and not a *mere conception* of the mind. For, if so, then were there no longer any mind to conceive it, there would be no longer any space; if no mind to think, then no thought. Were the whole race of intelligent beings, then, to be blotted out of existence, and all things else to remain as now, space would be gone, while, yet, matter would exist, extension — worlds moving on as before. Extension in what, motion in what? Not in space, for that is no longer extant; defunct, rather, with the last mind whose expiring torch went out in the gloom of night. Unless we make *matter*, then, to be also a mere conception of the mind, space is not so. If the one is real, the other is. If one is a mere conception, so is the other; and to this result the school of Kant actually come. Matter, itself, is a subjective phenomenon, a mode of mind, or, rather, if it be any thing more, we have no means of knowing it to be so.

If, on the contrary, as we hold, matter *exists*, and is an object of immediate perception by the senses, then there is such a thing as space also, the *condition* of its existence, a *reality*, though not an *entity*, the idea of it given along with that of matter, the reality of it implied in the reality of matter. Matter *presupposes* it, depends on it as its *sine qua non*.

It depends on nothing. Were there no matter, there would be none the less space, but only space unoccupied. In that case, the idea of space might never occur to any mind, but the reality would exist just as now. Were all matter and all mind to be blotted out of being, space would still be what it is now.

The Idea, how awakened — How come we by our Idea of Space? — Sense gives us our first knowledge of matter, as extended, etc., and so furnishes the *occasion* on which the idea of space is first awakened in the mind. In this sense, and no other, does it originate in sensation or experience. It is a simple idea, *logically* prior to experience, because the very notion of matter *presupposes* space; yet, *chronologically*, as regards the matter of development in the mind, subsequent to experience and cognizance of matter.

II. Time.

Idea and Definition. — What we have said of space will enable us better to understand what is the nature of that analogous and kindred conception of the mind, in itself so simple, yet so difficult of definition and explanation — *Time.* The remarks already made, respecting space, will almost equally apply to this subject also.

Space, we defined as the *condition of being, regarded as extended, material.* Time is the *condition of being, regarded as in action, movement, change.*

Sense informs us not only of magnitudes, extensions, material objects, and existences, as around us in nature, but of movements and changes continually taking place among these various existences; as *extension* is essential to those material forms, so *succession* is essential to these movements and changes; they cannot take place, nor be conceived to take place, without it; and as space is involved in, and given along with, the very idea of *extension*, so time is involved in, and given along with, the very idea of *succession.* Time, then, is the condition of action, movement, change.

event, as space is of extended and material existence. It is that which is required in order that something should *take place* or occur, just as space is that which is required in order that something should exist as material and having form. As space gives us the question *where*, time gives us the question *when*. It is the place of events, as space is of forms.

Brown's View. — Dr. Brown defines time to be the mere relation of one event to another, as prior and subsequent. It follows, from this view, that if there were no *events*, then no *time*, since the latter is a mere relation subsisting among the former. Is this so? No doubt we derive our *idea* of time from the succession of events; but is time merely an idea, merely a conception, merely a relation, or has it reality out of and aside from our mind's conceiving it, and independent of the series of events that take place in it?

Not a mere Conception. — Like space, it is a law of thought, a conception, and like space it is not a *mere* law of thought, not a mere conception of the mind, not altogether subjective. Nor is it a mere relation of one event to another in succession. It is, on the contrary, *necessary to*, and prior to, all succession and all events. It does not depend on the occurrence of events, but the occurrence of events depends on *it*. As space would still exist were matter annihilated, so time would continue were events to cease. But were time blotted out there could be no succession, no occurrence or event. Time is essential, not to the mere thought or *conception* of events, but to the *possibility* of the thing itself. It is not, then, a mere idea, or conception of the mind, nor a mere relation. It has, in a sense, objectivity and reality, since it is the ground and condition of all continuous active existence, as space is of all extended formal existence, the *sine qua non*, without which not merely our idea and conception of such existence would vanish, but the thing itself. There could be no such thing as active continuous existence, either of mind or matter,

since mind and spirit, as continuous and persistent in any of its moods and phases, much more as passing from one to another of those moods, implies succession. Time is to mind what space is to matter. *Matter* protends in *space*, *mind* in *time*. Time is even less purely subjective than space, for should we say that both matter and space are mere subjective phenomena, mere conceptions, yet even to those very conceptions, to those subjective phenomena, as states of mind, time is essential.

Whence our Idea of Time. — It is with the idea of time as with that of space. *Logically*, time is the condition, à priori, of all experience, because of all continuous existence and all consciousness; but *chronologically* it is à posteriori, *i. e.*, it is, to us, a matter of sensible experience. Sense is the occasion on which the idea of time is first awakened in our minds. We first exist, continue to exist, are conscious of that existence, conscious of succession, thoughts, feelings, sensations, and so we get the idea of time.

Time is necessary to *succession;* yet had there been no succession known to us, we should have had no *idea* of time. We are to distinguish, of course, between our *idea* of time and the thing itself. Locke is incorrect in making the idea of succession prior to that of duration, *in itself considered*, and not merely as regards our knowledge. In this respect, Cousin has ably and justly criticised the philosophy of Locke.

Time a relative Idea. — Looking at time merely as an idea or conception of our own minds, it is simply the perception of *relation;* the relation of passing events to each other, the relation of our various modes and states of being, our thoughts, feelings, etc., to each other, as successive, or to external objects and events, as also successive; the whereabouts, in a word, of one's self, one's present consciousness, in relation to what passes, or has passed, within or without, the relation of the present me to the former me, as regards both the succession of internal or external events

Hence the mind has only to withdraw itself completely from the consciousness of its former states and of events passing without, and it *loses* altogether its idea of time.

Thus in Sleep. — This we find to be the case in sleep. The thinking goes on; the idea of present self is kept up, but not of self in relation to the objects that are really about us, or to the actual part of its own existence. Whatever relation seems to exist, is imaginary and untrue. We no longer know where we are, nor exactly who we are. The avenues of communication with the external world are shut up, the eye, the ear, etc., are inactive, the spirit withdraws from the outward into itself, as far as this is possible, while the connection of body and mind still continues; its relations to former things and to present things are forgotten and unknown. What is the consequence? We lose all idea of *time;* the moment of falling asleep and of our beginning to awake, if the sleep have been sound, is apparently one and the same moment. The first effect of returning consciousness is to resume the broken thread of time, to find your place again in the series of things, whether it is morning or night, what morning or what night it is; to find yourself, in fact. You had *forgotten yourself*, to use a familiar phrase exactly descriptive of the present case. What of yourself had you forgotten? Simply your *relation* to the order and succession of things without, and of thoughts and feelings within — your place in the series. In sleep, your existence, so far as it is an object of consciousness at all, is simply that of each passing moment by itself.

Thus in absorbing Pursuits. — You have only, in your waking moments, to lose sight as completely of that relation and succession of the present self to the past self, or the me to the not me, and you lose as completely all idea of time. Does this ever occur? Partially, whenever the attention is absorbed in any intensely interesting pursuit or study. Time passes insensibly then. We are abstracted

from the series, our attention is withdrawn from surrounding objects and events, and even from our own thoughts, *as such*. We lose sight of the me, and, of course, of the relation of the me, to passing events, and therefore lose the sense of time. When the spell is at last broken we must go to seek ourselves again, as we would seek a child, that, in its play, had wandered from our side.

Also in Disease. — Something of the same sort occurs in severe and protracted sickness. The mind loses its reckoning, so to speak, as a ship in a storm loses latitude and longitude, and wanders from its course, unable longer to take its daily observations.

Idea of Time in Children. — You have doubtless noticed that children have little idea of time. It is much the same to them, one day with another, one week with another; it is morning, or afternoon, or night indifferently. The distinction and recognition of time, and of one time as different from another, is slowly acquired, and with difficulty. They have not that self-consciousness, that apprehension of the present and of the past, as related to each other in the series of events, which is involved in the idea of time. They are more like one in sleep, like one dreaming, like one in reverie, wholly absorbed with the present moment, the present consciousness.

Time longer to a Child than an Adult. — What has been said explains, also, the well-known fact, that time seems longer to a child than to an adult person. It is, as we have seen, the relation of the present self, as affected by changes internal and external, to the past self as thus affected, that gives us the idea and the standard of time. Of course, the shorter the line that represents the past, the longer, in comparison, that present duration which is measured by it Now the child has fewer past thoughts and events with which to compare the present ones; hence, they hold a greater comparative magnitude to him than to us, who have a greater range of past existence and past consciousness

with which to connect the passing moments. Hence, the longer we live, the more quickly pass our years, the shorter appears any given period of duration.

Applied to eternal Duration. — You have but to apply this thought to Him whose going forth is from of old, who *inhabiteth eternity*, and you have a new meaning in the beautiful thought of the Hebrew poet, that with Him a thousand years are but as a day. To that eternal mind, the remoteness of the period when the first star lighted up the vault of night at his bidding, may be recent as an event of yesterday.

III. IDENTITY.

Difficult of Explanation. — Perhaps no subject, in the whole range of intellectual philosophy, has been the occasion of more perplexity and embarrassment than this. It is, in itself, a difficult subject to comprehend and explain. We know what we mean by identity, but to tell what that meaning is, to state the thing lucidly, and explain it philosophically, is another matter. It becomes necessary to examine the subject, therefore, with some care, in order to avoid confusion of ideas, and positively erroneous opinions. The subject is one of some importance in its theological, as well as its strictly philosophical bearings.

Not Similarity. — Identity is *not similarity*, not mere resemblance — *similar* things are not the *same* thing. We may suppose two globes or spheres precisely alike in every respect — of the same size, color, form, of the same material, of the same chemical composition and substance, presenting to the eye and the touch, and every other sense, the very same appearance and qualities, so that, if viewed successively, we should not recognize the difference; yet they are not identical; they are, by the very supposition, *two* distinct globes, two entities, two substances, and to say that they are identical, is to say that two things are only one. *Similarity* is not identity — so far from it, as Archbishop Whately

has well remarked, it is not even implied of necessity in identity. A person may so far change as to be quite unlike his former self in appearance, size, etc., and yet be the same person. Not only are the two ideas quite distinct, but the one may be, and in fact is, in most cases, the virtual *negation* of the other. Resemblance, in most cases, implies difference of objects, the opposite of identity. To say that A and B resemble each other, is to say that, as known to us, they are *not* one and the same, not identical. It is only when one and the same object falls under cognizance at diverse times, so that we compare the object, as now known, with the same object as previously known, that resemblance and identity can possibly be predicated of the same thing.

Identity is only another term for *sameness* (*idem*); any one who knows what that means, knows what identity means, and that it does not mean mere similarity or resemblance.

Not sameness of chemical Composition. — Nor does sameness of chemical composition constitute identity. This is merely similarity. Two bodies may be composed of the same chemical elements, in the same proportion, and possessing the same general form and structure, yet they are not the same body. A given piece of wood or iron may be divided into a number of parts, each closely resembling the others, of the same appearance, size, figure, color, weight, and of the same chemical components; yet no one of these is identical with any other. When we say, in such a case, that the different pieces are of the same material, we use the word *same* with some latitude, to denote, not that they are composed of strictly the same particles, that the substance of the one is the very identical substance of the other, but only that they consist of the same *sort* or *kind* of substance, that they are, *e. g.*, both wood, or both iron. But this does not constitute identity.

There is no limit to the number of identical bodies which it is possible to conceive on this theory of identity. The same power that constructs one body of given chemical elements,

and of given form and structure, may make two such, or ten, and if the first two are identical, the ten are, and they may exist at one and the same time, beside each other, identical with each other, yet ten, every one of which is itself, and yet every one is each of the others!

A relative Term. — Identity is a relative term, like most others that are expressive of quality. The term straight implies the idea of that which is not straight; beauty, the idea of deformity; greatness, its opposite; and so of others. Identity stands related to *diversity* as its opposite. To have the idea of identity, is to have that of diversity also. To affirm the former, is to deny the latter, and to deny is to have the idea of that which is denied. I do not say there can be no *identity* without diversity, but only that there can be no *idea* of the one without the idea, also, of the other, any more than there can be the idea of a tall man without the idea of short men.

Opposite of Diversity. — To affirm identity, then, is simply to deny *diversity*, to predicate unity, sameness, oneness. Other objects there are, like this, it may be, similar in every respect, capable of being confounded with it, and mistaken for it, but they are *other* and not *it*. This we affirm when we affirm identity, *non-diversity*, *non-otherness*. Whatever it be that marks off and distinguishes a thing from all other like or unlike objects — whatever constitutes its *individuality*, its *essence* — *in that consists its identity.*

Different applications of the Term. — Evidently, then, the word has somewhat different senses as applied to different classes of objects, whose individuality or essence varies. There are three distinct classes of objects to which the term is applicable. 1. Spiritual existence. 2. Organic and animate material existence. 3. Inorganic matter.

As applied to the first Class. — As regards the first class, *spiritual existences*, their identity consists in simple oneness and continuity of existence. It is enough that the soul or spirit exist, and continue to exist. So long as this is the

case, identity is predicable of it. Should that existence cease, the identity ceases, since the object no longer exists of which identity can be affirmed. Should another spirit be created in its place, and even, *if the thing be supposable*, should it be endowed, not only with the same qualities, but the same *consciousness*, so as to be conscious of all that of which the former was conscious, still it would not be identical with the former. It is, by the very supposition, *another* spirit, and not the same. To be identical with it, it must be the very same essence, being, or existence, and not some other in its place.

It is only of spiritual immaterial existence that identity, in its strict and complete sense, is properly predicable, since it is only this class of existences that retains, unimpaired, its simple oneness, sameness, continuity of essence.

Personal Identity. — When we speak of *personal* identity, we mean that of the spirit, the soul, the ego, in distinction from the corporeal material part. The *evidence* of personal identity is *consciousness*. We know that the thinking conscious existence of to-day, which we call *self*, *me*, is one and the same with the thinking conscious self or me of yesterday, and not some other personal existence of like attributes and condition.

Locke's Idea. — Mr. Locke strangely mistook the *evidence* of personal identity for identity *itself*, and affirmed that our identity *consists* in our consciousness. If this were so, then, whenever our consciousness were interrupted, as in sound sleep, or in fainting, or delirium, our identity would be gone. This error has been pointed out, and fully explained, by Dr. Reid, and Bishop Butler, the former of whom makes this supposition: that the same individual is, at different periods of life, a boy at school, a private in the army, and a military commander; while a boy, he is whipped for robbing an orchard; when a soldier, he takes a standard from the enemy, and at that time recollects, perfectly, the whipping when a boy · when commander, he remembers taking the standard

but not the whipping. It follows, according to Mr. Locke, that the soldier is identical with the boy, and the general with the soldier, because conscious of the same things, but the general is not identical with the boy, because not conscious of the same things. that is, *a* is *b*, and *b* is *c*, yet *a* is not *c*. The truth is, *identity*, and the *evidence* of it, are two things. Were there no consciousness of any thing past, there would still be identity so long as unity and continuity of existence remained.

2. *Identity as applied to the second Class.* — As regards *organic material* existence, whether animal or vegetable, the identity consists in that which constitutes the essence or being of the thing, which constitutes it an animal or vegetable existence. It is not mere body, not mere particles of matter, of such number and nature, or even of such arrangement and structure, but along with this, there is a higher principle involved — that of life. The continuity of this mysterious principle of life, under the same general structure and organization of material parts, making throughout one complex unity, one entity, one being, though with many changes, it may be, of separate parts and particles composing the organization; this constitutes the identity of the object.

The identity is no longer complete, no longer absolute, because there is no longer, as in the case of spiritual existence, absolute sameness of essence. Of the complex being under consideration, animal or vegetable, the life-principle is, indeed, one and the same throughout all periods of its existence, but the material organization retains not the same absolute essence, only the same general structure, and form, and adaptation of parts, while the parts and particles themselves are continually changing. It is only in a modified and partial sense, then, not in strict philosophical use of language, that we can predicate identity of any material organic existence We mean by it, simply, *continuity of life* under the same general structure and organization; for so far as it has

unity at all, this is it. This enables us to distinguish such an object from any and all other like objects of the same kind or sort.

3. *Identity as applied to the third Class.* — As regards mere inorganic matter, its identity consists, again, in its absolute oneness and sameness. There must be no change of particles, for the essence of the thing now considered lies not in any peculiarity of form, or structure, or life-principle, all which are wanting, but simply in the number and nature of the particles that make up the mass or substance of the thing, and if these change in the least, it is no longer the same essence. There is, properly, then, no such thing as identity in the cases now under consideration, since the particles of any material substance are liable to constant changes. It is only in a secondary and popular sense that we speak of the identity of merely inorganic material substance; strictly speaking, it has no identity, and continues not the same for any two moments.

We say, however, of two pieces of paper, that they are of the *same* color, meaning that they are both white or both red; of two coins, that they are of the same fineness, the same size, and weight, etc., meaning, thereby, only that the two things are of the same *sort* of color, the same degree of fineness, etc., and not that the color of the one or the fineness and size of the one is absolutely the essential and identical color, size, fineness of the other. It is by a similar use of terms, not in their strict and proper, but in a loose and secondary sense, that we speak of the identity or sameness of any material substance in itself considered. Strictly, it has no identity unless its substance is absolutely unchanged, which is not true of most, if, indeed, of any material existence, for any successive periods of time.

Popular Use. — There is a popular use of this term which requires further notice. We speak of the identity of a mountain, a river, a tree, or any like object in nature. It is the same mountain, we say, that we looked upon in child

hood, the same tree under which we sat when a boy, the same river in which we bathed or fished in youth. Now there is a sense in which this is true and correct. There has been change of substance unquestionably, and therefore there is not *absolute* identity; but there is, after all, *numerical* sameness, and this is what we mean when we speak of the sameness or identity of the object. It constitutes a sufficient ground for such use of terms. You recognize the book, the mountain, the river, as one you have seen before. The tree that you pass in your morning walk you recognize as the very tree under which you sat ten years ago. Leaves have changed, bark and fibres have changed; branches are larger and more numerous; boughs, perhaps, have fallen by time and by tempest; it has changed as you have changed, it has grown old like yourself, with changing seasons; its verdure and foliage, like your hopes and plans, lie scattered around it, and yet it is *to you* the same tree. How so? It is the same numerical unity. Of a thousand or ten thousand *similar* trees, similar in species, in growth, and form, and adaptation of parts, in size, color, general appearance, etc., it is this individual one, and not some other of the same sort or species growing elsewhere, that you refer to. It is the same numerical unity and not some other one of the series. Still there must be continuity of existence in order to identity even in this popular sense of the term. Were the parts entirely changed and new ones substituted, as in the puzzle of the knife with several successive handles and blades, or the ship whose original timbers, planks, cordage, and entire substance, had, in course of time, by continued repairs, been removed and replaced by new; in such a case, we do not ordinarily speak or think of the object as being any longer the same.

This not absolute Identity. — In the cases now under consideration, in which, in popular language, objects are termed "same" and "identical," which are not strictly so, there is *comparative* rather than *absolute* unity and identity

There is reference always in such cases to other objects of the same kind, sort, and description, a series of which the object of present cognition is one, and to which series it holds the same relation now that it held formerly. As when, of several books on a table, you touch *one*, and after the interval of some moments or hours touch the same again; you say, The book I last touched is the same I touched before, the *identical* one; you do not mean that its *substance* is absolutely unchanged, that it has the same precise number of particles in its composition as before — this is not in your mind at all — but only that the unity thus designated is the same unity previously designated, that, and not some other one of the series of similar objects. It is a *comparative* idea, a comparative identity, in which numerical unity is the element chiefly regarded.

Possible Plurality implied. — In all cases where the idea of identity arises in the mind, there is implied a *possible* plurality of objects of the same general character; the idea of such diversity or plurality is before the mind, and the foundation of that idea is the difference of cognition. The same object is viewed by the same person at *different times* or by *different persons* at the same time, and in that case, though the object itself should be absolutely one and the same, yet there have been distinct, separate cognitions of it, and this plurality or difference of cognition is a sufficient foundation for the idea of a possible diversity of object. The book *as known* to-day and the book *as known* yesterday, are two distinct objects of thought. The cognition now, and the cognition then, are two separate acts of the mind; and the question arises, Are the *objects* distinct, as well as the cognitions? This is the question of identity. You have an immediate, irresistible conviction that the object of these several cognitions is one and the same. You affirm its identity, absolute or comparative, as the case may be.

The Conception of Identity amounts to what. — In every

case of affirmed identity, then, there is implied a possible plurality of objects; a difference of cognition of a given object, whether one person cognizant at different times, or different persons at the same time; a question whether the possible plurality, as regards the object of these different cognitions, is an *actual* plurality; a conviction and decision that it is not, that the object is one and the same; and this sameness and unity are *absolute* or *comparative*, according as we use the language in its strict, primitive, philosophical meaning, or in its loose and popular sense. In the one case, it is sameness of absolute essence, in the other, sameness of nominal relation to others of a series or class.

IV. Cause.

Meaning of the Term. — The idea of cause is one with which every mind is familiar. It is not easy, however, to explain precisely what we mean by it, nor to fix its limits, nor to unfold its origin.

We mean by this term, I think, as ordinarily employed, that on which some consequence depends, that but for which some event or phenomenon would not occur. In order to affirm that one thing is the cause of another, I must know, not merely that they are connected, but that the existence of the one depends on that of the other. This is more than mere antecedence, however invariable. The approach of a storm may be invariably indicated by the changes of the barometer. These changes precede the storm, but are not the cause of it.

Origin of the Idea. — *Whence do we derive* the idea of cause? — a question of some importance, and much discussed.

Evidently not from sense. I observe, for example, the melting of snow before the fire, or wax before the flame of a taper. What is it that I see in this case? Merely the phenomenon, nothing more. All that sense conveys, all that the eye reports, is simply the melting of the one substance in the presence and vicinity of the other. I *see* no cause, no

form transmitted from the one to the other, no action of the one on the other, but simply the vicinity of the two, and the change taking place in one. I *infer* that the change takes place in consequence of the vicinity. I believe it; and if the experiment is often repeated with the same results, I cannot doubt that it is so. The idea of causality is, indeed, *suggested* by what I have seen, but is not given by sense I have not seen the cause; that lies hidden, occult, its nature wholly unknown, and its very existence known, not by what I have actually seen, but by that law of the mind which leads me to believe that every event must have a cause, and to look for that cause in whatever circumstance is known to be invariably connected with the given change or event.

Constitution of the Mind. — That such is the constitution of the mind, such the law of its action, admits of no reasonable doubt. No sooner is an event or phenomenon observed, than we conclude, at once, that it is an effect, and begin to inquire the cause. We cannot, by any effort of conception, persuade ourselves that there is absolutely no cause.

Not derived from Sense. — But is not this principle of causality derived from experience? We have already said that sense does not give it. I do not see with the eye the cause of the melting of the wax, much less does what I see contain the general principle, that *every* event must have a cause. Sense does not give me this.

Whether from Consciousness. — Still, may it not be a matter of experience in another way, given by *consciousness*, though not by *sense*. For example, I am conscious of certain volitions. These volitions are accompanied with certain muscular movements, and these, again, are followed by certain sensible effects upon surrounding objects. These changes produced on objects without are directly connected thus with my own mental states and changes, with the volitions of which I am directly conscious. Given, the volition on my part, with the corresponding muscular effort,

and the external change is produced. I never observe it taking place without such preceding volition. I learn to regard my will as the *cause*, and the external change as the *effect*. I observe that it is in the power of others to produce changes in like manner. Thus I obtain the general idea of cause. It is given by consciousness and experience.

Notion of Causality not thus derived. — It is to this source that a very able and ingenious French philosopher would attribute our first idea of cause. I refer to Maine de Biran. I should agree with M. de Biran, that consciousness of our own voluntary efforts, and of the effects thus produced, may give us our first notion of cause. But it does not give us the law of causality. It extends to a given instance only, explains that, explains nothing further than that, cannot go beyond. I am conscious that in this given instance I have set in operation a train of antecedents and sequences which results in the given effect. I am not conscious that *every* event has, in like manner, a cause. My experience warrants no such assumption. No induction of facts and cases can possibly amount to this. Induction can multiply and generalize, but cannot stamp on that which is merely empirical and contingent, the character of universality and necessity. The law of causality, in a word, is to be distinguished from any given instance, or number of instances, of actually observed causation. The latter fall within the range of consciousness and experience, the former is given, if at all, as a law of the mind, a primary truth, an idea of reason.

Remarks of Professor Bowen. — As Professor Bowen has well observed, "The maxim, '*Every event must have a cause*,' is not, like the so-called laws of nature, a mere induction founded on experience, and holding good only until an instance is discovered to the contrary; it is a necessary and immutable truth. It is not derived from observation of natural phenomena, but is super-imposed upon such observation by a necessity of the human intellect. It is not made

known through the senses; and its falsity, under any circumstances, is not possible, is not even conceivable. The *cause* to which it points us, is not to be found in nature. The mere physicist, after vainly searching, ever since the world began, for a single instance of it, has, at length, abandoned the attempt as hopeless, and now confines himself to the mere *description* of natural phenomena. The *true cause* of these phenomena must be sought for in the realm, not of *matter*, but of *mind*."

What constitutes Cause. — In this last remark, the author quoted touches upon a question of no little moment. What constitutes a cause? We cannot here enter into the discussion of this question. It is sufficient to remark, that in the ordinary use of the word, as denoting that, but for which a given result will not be, many things beside mind are included as causes. A hammer, or some like instrument, is essential to the driving of a nail. The hammer may be called the cause of the nail being driven; the blow struck by means of the hammer may also be so designated. More properly, the arm which gave the blow, and, more correctly still, the mind which willed the movement of the arm, and not the consequent blow of the hammer, may be said to be the cause. If we seek for *ultimate* and *efficient* causes, we must, doubtless, come back to the realm of mind. It is mind that is, in every case, the first mover, the originator of any effect, and it may, therefore, be called the true and prime cause, the cause of causes.

History of the Doctrine. — *Aristotle's View.* — The history of the doctrine of causality presents a number of widely different theories, a brief outline of which is all that we can here give. The most ancient division and classification of causes is that of Aristotle, which is based on the following analysis: Every work brought to completion implies four things: an agent by whom it is done, an element or material of which it is wrought, a plan or idea according to which it is fashioned, and an end for which it is produced.

Thus, to the production of a statue there must be a statuary, a block of marble, a plan in the mind of the artist, and a motive for the execution of the work. The first of these is termed the *efficient* cause, the second the *material* cause, the third the *formal*, and the fourth the *final* cause. This classification was universally adopted by the scholastic philosophers, and, to some extent, is still prevalent. We still speak of *efficient* and of *final* causes.

Locke's Derivation of Cause. — With regard to the origin of the idea of cause, there has been the greatest diversity of opinion. Locke derives it from sense; so do the philosophers of the sensationalist school. We perceive bodies modifying each other, and hence the notion of causality.

Theory of Hume and of Brown. — Hume denies the existence of what we call cause, or power of one object over another. He resolves it into succession or sequence of objects in regular order, and consequent association of them in our thoughts. Essentially the same is the theory of Brown, who resolves cause and effect into simple antecedence and sequence, beyond which we know nothing, and can affirm nothing.

Theory of Leibnitz. — The theory of Leibnitz verges upon the opposite extreme, and assigns the element of power or causal efficiency to every form of existence; every substance is a force, a cause, in itself.

Of Kant. — Kant and his school make cause a merely subjective notion, a law of the understanding, which it impresses upon outward things, a condition of our thought. We observe external phenomena, and, according to this law of our intelligence, are under the necessity of arranging them as cause and effect; but we do not know that, independent of our conception, there exists in reality any thing corresponding to this idea. The tendency of this theory, as well as that of Hume and Brown, to a thorough-going skepticism, is obvious at a glance. The theory of Maine de Biran has been already noticed.

V. The Idea of the Beautiful, and of Right.

These Ideas Intuitive. — Among the primary ideas awakened in the mind by the faculty of original or intuitive conception, ideas of reason, as some writers would prefer to call them, must be included the notion of the *beautiful*, and also that of *right* — ideas more important in themselves, and in their bearing on human happiness, than almost any others which the mind entertains. That these ideas are to be traced, ultimately, to the originative or intuitive faculty, there can be little doubt. They are simple and primary ideas. They have the characteristics of universality and necessity. They are awakened intuitively and instantaneously in the mind, when the appropriate occasion is presented by sense. There are certain objects in nature and art, which, so soon as perceived, strike us as beautiful. There are certain traits of character and courses of conduct, which, so soon as observed, strike us as morally right and wrong. The ideas of the beautiful and the right are thus awakened in the mind on the perception of the corresponding objects.

Things to be considered respecting them. — Viewed as notions of the intuitive faculty, or original conceptions, it would be in place to consider more particularly the *circumstances* under which each of these ideas originates, and the *characteristics* of each; also what *constitutes*, in either case, the object, what constitutes the beautiful and the right.

These Topics reserved for separate Discussion. — These matters deserve a wider and fuller discussion, however, than would here be in place. The ideas under consideration are to be viewed, not merely as conceptions of the reason or intuition, but as constituting the material of two distinct and important departments of mental activity, two distinct classes of judgments, viz., the *æsthetic* and the *moral*. The conceptions of the beautiful and the right, furnished by the originative or intuitive power of the mind, constitute the

material and basis on which the reflective power works, and as thus employed, the mental activity assumes the form, and is known under the familiar names of *taste* and *conscience*, or, as we may term them, the æsthetic and moral faculties. As such, we reserve them for distinct consideration in the following pages, bearing in mind, as we proceed, that these faculties, so called, are not properly new powers of the mind, but merely forms of the reflective faculty, as exercised upon this particular class of ideas.

CHAPTER III.

THE CONCEPTION AND COGNIZANCE OF THE BEAUTIFUL.

§ I. — Conception of the Beautiful.

The Science which treats of this. — The investigation of this topic brings us upon the domain of a science as yet comparatively new, and which, in fact, has scarcely yet assumed its place among the philosophic sciences — *Æsthetics*, the science of the beautiful.

Difficulty of defining. — What, then, is the beautiful? — A question that meets us at the threshold, and that has received, from different sources, answers almost as many and diverse as the writers that have undertaken its discussion. It is easy to specify instances of the beautiful without number, and of endless variety; but that is not defining it. On the contrary, it is only increasing the difficulty; for, where so many things are beautiful, and so diverse from each other, how are we to decide what is that one property which they all have in common, viz., beauty? The difficulty is to fix upon any one quality or attribute that shall pertain alike to all the objects that seem to us beautiful. A figure of speech, a statue, a star, an air from an opera, all strike us as

beautiful, all awaken in us the emotion which beauty alone can excite. But what have they in common? It were easy to fix upon something in the case of the statue, or of the star, which should account, perhaps, for the pleasure those objects afford us; but the same thing might not apply to the figure of speech, or to the musical air. It would seem almost hopeless to attempt the solution of the problem in this method. And yet there *must be*, it would seem, some principle or attribute in which these various objects that we call beautiful agree, which is the secret and substance of their beauty, and the cause of that uniform effect which they all produce upon us. Philosophers have accordingly proposed various solutions of the problem, some fixing upon one thing, some upon another; and it may be instructive to glance at some of these definitions.

Some make it a Sensation. — Of those who have undertaken to define what beauty is, there are some who make it a mere *feeling* or sensation of the mind, and not an objective reality of any sort. It is not this, that, or the other quality of the external object, but simply a subjective emotion. It lies within us, and not without. Thus, Sir George Mackenzie describes it as "a certain degree of a certain species of pleasurable effect impressed on the mind." So also Grohman, Professor of Philosophy at Hamburg, in his treatise on æsthetic as science, defines the beautiful to be "the infinite consciousness of the reason as *feeling*." As the true is the activity of reason at work as *intellect* or knowledge, and as the good is its province when it appears as *will*, so the beautiful is its activity in the domain of *sensibility*. Brown, Upham, and others, among English and American writers, frequently speak of the emotion of beauty, as if beauty itself were an emotion.

Others an Association. — Closely agreeing with this class of writers, and hardly to be distinguished from it, is that which makes beauty consist in certain *associations of idea and feeling* with the object contemplated. This is the fa-

vorite doctrine with the Scotch metaphysicians. Thus Lord Jeffrey, who has written with great clearness and force on this subject, regards beauty as dependent entirely on association, "the reflection of our own inward sensations." It is not, according to this view, a quality of the object external, but only a feeling in our own minds. Its seat is within and not without.

Theory that Beauty consists in Expression. — Of the same general class, also, are those who, with Alison, Reid, and Cousin, regard beauty as the *sign* or *expression* of some quality fitted to awaken pleasing emotions in us. Nothing is beautiful, say these writers, which is not thus expressive of some mental or moral quality or attribute. It is not an original and independent quality of any peculiar forms or colors, says Alison, for then we should have a definite rule for the creation of beauty. It lies ultimately in the mind, not in matter, and matter becomes beautiful only as it becomes, by analogy or association, suggestive of mental qualities. The same is substantially the ancient Platonic view. Kant, also, followed in the main by Schiller and Fichte, takes the subjective view, and makes beauty a mere play of the imagination.

All these Theories make it subjective. — Whether we regard beauty, then, as a mere emotion, or as an association of thought and feeling with the external object, or as the sign and expression of mental qualities, in either case we make it ultimately subjective, and deny its external objective reality

Different Forms of the objective Theory. — Of those who take the opposite view, some seek for the hidden principle of beauty in *novelty;* others, as Galen and Marmontel, in *utility;* others, as Shaftesbury, Hutcheson, Hogarth, in the principle of *unity in variety;* others, in that of *order and proportion*, as Aristotle, Augustine, Crousez.

All these writers, while they admit the existence of beauty in the external object, make it to consist in some quality or conformation of matter, as such.

The spiritual Theory. — There is still another theory of the beautiful, which, while admitting its external objective reality, seeks to divest it of that material nature in which the writers last named present it, and searches for its essence among principles ethereal and spiritual. According to this view beauty is the *spiritual life in its immediate sensible manifestation;* the hidden, invisible principle — spirit in distinction from matter, animating, manifesting itself in, looking out through, the material form. It is not matter as such, it is not spirit as such, much less a mere mental quality or mental feeling; it is the expression of the invisible and spiritual under sensible material forms. This view was first fully developed by Schelling and Hegel, and is adopted, in the main, by Jouffroy in his Cours d'Esthetique, by Dr. August Ruhlert, of the university of Breslau, in his able system of æsthetics, and by many other philosophical writers of distinction in Europe.

Questions for Consideration. — The following questions grow out of these various and conflicting definitions, as presenting the real points at issue, and, as such, requiring investigation.

I. Is beauty something objective, or merely subjective and emotional?

II. If the former, then what is it in the object that constitutes its beauty?

I. *Question stated.* — Is beauty merely subjective, an emotion of our own minds, or is it a quality of objects? When we speak, *e. g.*, of the beauty of a landscape, or of a painting, do we mean merely a certain excitement of our sensitive nature, a certain feeling awakened by the object, or do we mean some quality or property belonging to that object? If the latter, then are we *correct* in attributing any such quality to the object?

Emotion admitted. — Unquestionably, certain pleasing emotions are awakened in the mind in view of certain objects which we term beautiful; unquestionably those objects are

the cause or occasion of such emotions; they have, under favorable circumstances, the power of producing them; unquestionably they have this power by virtue, moreover, of some quality or property pertaining to them. All this will be admitted by those who deny the objective reality of beauty. The question is not, whether there is in the object any quality which is the occasion or cause of our emotion, but whether the term beauty is properly the name of that cause, or of the emotion it produces.

Beauty not an Emotion. — The question would seem a very plain one if submitted to common sense. It would seem strange that any one should deliberately and intelligently take the position that beauty and sublimity are merely emotions of our minds, and not qualities of objects: when we hear men speaking in this way, we are half inclined to suspect that we misunderstand them, or that they misunderstand themselves. I look upon a gorgeous sunset, and call it beautiful. What is it that is beautiful? That sky that cloud, that coloring, those tints that fade into each other and change even as I behold them, those lines of fire that lie in brilliant relief upon the darker background, as if some radiant angel had thrown aside his robe of light as he flew, or had left his smile upon the cloud as he passed through the golden gates of Hesperus, these, these, are beautiful; *there* lies the beauty, and surely not in me, the beholder. An emotion is in my mind, but that emotion is not beauty; it is simple *admiration*, *i. e.*, wonder and delight. There is no such emotion as beauty, common as is the ambiguous expression "emotion of beauty." There are emotions of fear, hope, joy, sorrow, and the like, and these emotions I experience; I know what they mean; but I am not conscious of having ever experienced an emotion of *beauty*, though I have often been filled with wonder and delight at the sight of the beautiful in nature or art. When I experience an emotion of fear, of hope, of joy, or of sorrow, what is it that is joyful or sorrowful, hopeful or fearful? My mind, of

course, that is, I, myself. The object that occasions the emotion on my part, is in no other sense fearful or joyful than as it is the occasion of my being so. If, in like manner, beauty is an emotion, and I experience that emotion, it is, of course, my mind that is beautiful, and not the object contemplated. It is I, myself, that am beautiful, not the sunset, the painting, the landscape, or any thing of that sort, whatever. These things are merely the occasion of *my* being beautiful. Could any doctrine be more consoling to those who are conscious of any serious deficiency on the score of personal attractions! Can any thing be more absurd?

The common View correct. — I beg leave to take the common-sense view of this question, which I cannot but think is, in the present instance, the most correct, and still to think and speak of the beauty of *objects*, and not of our own minds. Such is certainly the ordinary acceptation and use of the term, nor can any reason be shown why, in strictest philosophy, we should depart from it. There is no need of applying the term to denote the emotion awakened in the mind, for that emotion is not, in itself, either a new or a nameless one, but simply that mingled feeling of wonder and delight which we call admiration, and which passes, it may be, into love. To make beauty itself an emotion, is to be guilty of a double absurdity. It is to leave the quality of the object which gives rise to the emotion altogether without a name, and bestow that name where it is not needed, on that which has already a name of its own.

Beauty still objective, though reflected from the Mind. — If to this it be replied, that the beauty which we admire and which *seems* to be a property of the external object, is, nevertheless, of internal origin, being merely a transfer to the object, and association with it, of certain thoughts and feelings of our own minds, a reflection of our own consciousness gilding and lighting up the objects around us, which objects are then viewed by us as having a light and beauty

of their own, I answer, that even on this supposition, the external object, as thus illumined, has the power of awakening the pleasing emotion within us, and that power is its beauty, a property or quality of the object still, although borrowed originally from the mind; just as the moon, though it give but a reflected light, still shines, and with a beauty of its own. So long as those thoughts and feelings lay hidden in the mind, untransferred, unassociated with the external object, they were not *beauty*. Not until the object is invested with them, and they have become a property of that object, do they assume, to the mental eye, the quality of beauty. So, then, beauty is even still an objective reality, something that lies without us, and not within us.

The Power of expressing an objective Quality, likewise.—In like manner, if it be contended that beauty is only the sign and expression of mental qualities, I reply, that power of signifying or expressing is certainly a property of the object, and that property is its beauty, and is certainly a thing objective, and not a mere emotion.

All Beauty not Reflection, nor Expression.—I am far from conceding, however, that all beauty is either the reflection or expression of what passes within the mind. There are objects which no play of the fancy, no transfer or association of the mental states, can ever render beautiful; while, on the other hand, there are others which require no such association, but of themselves shine forth upon us with their own clear and lustrous beauty. Suppose a child of lively sensibility, and with that true love of the beautiful, wherever discerned, which is one of the finest traits of the child's nature, to look for the first time upon the broad expanse of the ocean; it lies spread out before him a new and sudden revelation of beauty; its extent of surface, unbroken by the petty lines and boundaries that divide and mark off the lands upon the shore; its wonderful deep blue, a color he has seen hitherto only in the firmament above him, and not there as here—that deep blue relieved by the white sails, that, like

birds of snowy wing, flit across its peaceful bosom, or lie motionless in the morning light on its calm expanse; its peculiar convexity of surface, as it stretches far out to the horizon, and lifts up its broad shoulders against the sky;—these things he beholds for the first time, they are associated with nothing in his past experience; he has never seen, never dreamed of such a vision; it is not the reflection of his own thoughts or fancies; but it is, nevertheless, to him a scene of rare and wondrous beauty, the recollection and first impression of which shall haunt him while he lives. If, in after life, he came to philosophize upon the matter, it would be difficult to convince him that what he thus admired was but the play of his own imagination, the transfer of his own mental state, the association of his own thought and feeling with the object before him; in a word, that the beauty which so charmed him lay not at all in the object contemplated, but only in his own mind.

A further Question. — That the beauty which we perceive is a quality of objects, and not merely a subjective emotion, that there is in the object something which, call it what we will, is the producing cause of the emotion in us, and that this objective cause, whatever it be, is, in the proper use of terms, to be recognized as beauty, this we have now sufficiently discussed. Admitting, however, these positions, the question may still arise, whether that which we call beauty in objects has, after all, an absolute existence, independent of the mind that is impressed by it? The beauty that I admire in yonder landscape, or in the wild flower that blooms at my feet, is, indeed, the beauty of the landscape or the flower, and not of my mind; it pertains to, and dwells in, the object, and not in me; but dwells it there independently of me, the observer, and when I do not behold it? If there were no intelligent, observing mind, to behold and feel that beauty, would the object still be beautiful, even as now? This admits of question. Is the beauty a fixed, absolute quality, inherent in the object as such, and *per se*, or is it

something springing out of the relation between the mind of the observer and the object observed.

No Evidence of its Existence except its Effect. — That it is relative, and not absolute, may be argued from the fact that we have no evidence of any such quality or cause, save as in operation, save as producing effects in us; and as we could never have inferred the existence of the cause, had it not been for the effect produced, so we have no reason to suppose its existence when and where it does not manifest itself in operation, that is to say, when and where it is not observed. As the spark from the smitten steel is not strictly to be regarded as itself a property of the steel, nor yet of the flint, but as a relative phenomenon arising from the collision of the two, so beauty, it may be said, dwells not absolutely in the object *per se*, nor yet in the intelligent subject, but is a phenomenon resulting from the relation of the two.

Further Argument from diversity of Effects. — The same may be argued from the diversity of the effects produced. If beauty is a fixed, absolute quality of objects, it may be said, then the effects ought to be uniformly the same; whereas there is, in fact, no such uniformity, no standard of beauty, none of taste, but what seems to one man exceedingly fine, excites only the aversion and disgust of another, and even the same person is at different times differently affected by the same object. Hence it may be inferred that the beauty is merely a relation between the mind and the object contemplated, varying as the mind varies.

Reply to the first Argument. — To these arguments I reply, in the first place, that it is not necessary that a cause should be in actual operation, under our immediate eye, in order that we should conclude its independent and constant existence. If, whenever the occasion returns, the effects are observed, we conclude that the cause exists *per se*, and not merely in relation to us. Otherwise we could never believe the absolute existence of any thing, but should, with

Berkley and Hume, call in question the existence of matter itself, save as phenomenal and relative to our senses. The same argument that makes the beauty of a rose relative merely to the observer, makes the rose itself merely a relative existence. How do I know that it exists? I see it, feel it, smell it; it lies upon my table; it affects my senses. I turn away now. I leave the room. How do I know *now* that the rose exists? It no longer affects my senses; the cause no longer operates; the effect is no longer produced. I have just as much reason to say it no longer exists, as to say it is no longer beautiful.

Reply to the second Argument. — To the argument from the diversity of effect, I reply, that admitting the fact to be as stated, viz., that the same object is differently regarded by different minds, the diversity may arise from either of two sources. The want of uniformity may lie in the cause, or it may lie in the minds affected by it. The exciting cause may vary, and the effects produced by it will then be diverse; or the minds on which it operates may differ, and in that case, also, the effects will be diverse. We are not to conclude, then, from diversity of effect that the cause is not uniform. A beautiful object, it is true, affects different observers differently, but the reason of the diversity may be in *them* and not in the object.

What then is the fact? Are the minds of all observers equally susceptible of impression from the beautiful? By no means. They differ in education, habit of thought, culture, taste, native sensibility, and many other things. Hardly two minds can be found that are not diverse in these respects. Ought we then to expect absolute uniformity of effect?

Not to be conceded that there is no Agreement. - It is by no means to be conceded, however, that there is no such thing as a standard of beauty or of taste, no general agreement among men as to what is or is not beautiful, no general agreement as to the emotions produced. There is such

agreement in both respects. Within certain limits it is uniform and complete. Certain aspects of nature, and certain works of art, are, in all ages, and by all men, regarded as beautiful. The Apollo Belvidere, and the Venus of the Capitol, are to us what they were to the ancients; the perfection of the beautiful. The great work of Raphael, scarcely finished at his death, the last touches still fresh from his hand — that work which, as it hung above his bier, drew tears from all eyes, and filled with admiration all hearts — is still the wonder and admiration of men. And so it will be in centuries to come. And so of the emotions produced by the contemplation of the beautiful. Making due allowance for habits of association, mental culture, and differences of native sensibility, we shall find men affected much in the same way by the beautiful in nature or art. The men of the same class and condition as to these matters — the peasant of one age or country, and the peasant of another, the philosopher of one time, and of another, the wealthy, uneducated citizen, and the fashionable fool, of one period and nation, and of another — experience much the same effects in view of one and the same object. The same general laws, too, preside over and regulate the different arts which have relation to the beautiful, in all ages of the world.

Consequences of the Theory that Beauty is merely relative. — If beauty be not absolute but relative only, it follows, 1. That, if there were no observers of nature or art, neither would be longer beautiful. 2. If, for any reason anything is for the time unseen, as, *e. g.*, a pearl in the sea, a precious stone in the mine, or a rich jewel in the casket, it has no beauty so long as it is there and thus. 3. As minds vary in susceptibility of impression, the same thing is beautiful to one person and not to another; at one time and not at another; nay, at one and the same moment it is both beautiful and not beautiful, according as the minds of the observers vary I cannot say with truth, that the Mosaics of St. Peter's,

or the great diamond of the East, are, at this moment, really beautiful, because I do not know who, or whether any one, may, at this moment, be looking at them.

Intimate Relation between the Mind and the Object.—While I maintain, however, the existence of beauty as an absolute and independent quality of objects, and not merely as relative to the mind that perceives and enjoys it, I would, by no means, overlook the very intimate relation which subsists, in the present case, between the perceiving mind and the object perceived. Beauty makes its appeal primarily to the senses. It pleases and charms us, because we are endowed with senses and a nature fitted to receive pleasure from such objects. In the *adaptation* of our physical and mental constitution to the order and constitution of material things as they exist without, lies the secret of that power which the beautiful exerts over us.

Might have been otherwise constituted. — We might have been so constituted, doubtless, that the most beautiful objects should have been disgusting, rather than pleasing: the violet should have seemed an ugly thing, and the sweetest strains of music harsh and discordant. There are disordered senses, and disordered minds, to which, even now, those things, which we call beautiful, may so appear. For that adaptation of our sensitive nature to external objects, and of these objects to our sensitive nature, by virtue of which, the percipient mind recognizes and feels the beauty of the object perceived, and takes delight in it, we are indebted wholly to the wisdom and benevolence of the great Creator.

The Doctrine maintained. — Still, *given*, the present constitution and mutual adaptation of mind and matter, and we affirm the independent existence of the beautiful as an object *per se*, and not merely as an affection of the percipient mind. The perception and enjoyment of the beauty are subjective, relative, dependent; the beauty itself not so.

The second Question. — If beauty be, then, as we find rea

on to believe, not wholly a subjective affair, but a quality or property of external objects, the question now arises,

II. What is it in the object, that constitutes its beauty?

Theory of Novelty. — And first, is it the *novelty* of the thing? Is the novel the beautiful? Doubtless, novelty pleases us. It has this in common with the beautiful. Yet some things that are novel, are by no means beautiful. A mill for grinding corn is a great curiosity to one who has never seen such a machine before, but it might not strike him as particularly beautiful.

Every thing, when first beheld, is novel; but every thing is not beautiful. Let us look more closely at the element of novelty. That is novel which is new to *us* merely, which appears to us for the first time. It may be new to the intellect, a new idea, or to the sensibility, a new feeling, or to the will, a new act. As a new idea it satisfies our curiosity, as a new feeling it developes our nature, as a new volition it enlarges the sphere of our activity. In these respects, and for these reasons, novelty pleases, but in all this we discover no resemblance to the beautiful.

Novelty heightens Beauty. — It is not to be denied that novelty, in many cases, heightens the beauty of an object. By familiarity, we become, in a measure, insensible to the charms of that which, as first beheld, filled us with delight. The sensibility receives no further excitement from that to which it has become accustomed. To enjoy mountain scenery most highly, one must not always dwell among the mountains. To enjoy Niagara most highly, one must not live in the sight of it all his days. But beauty, and the *enjoyment* of the beautiful, are surely different things, and while novelty is accessory to the full effect of the beautiful on our minds, and even indispensable to it, it is not, itself, the element of beauty, not the ground and substance of it.

Not always pleasing. — Jouffroy even denies that novelty is always pleasing. Some things, he contends, *displease* us, simply because they are new. We become accustomed to

them, and our dislike ceases. Thus it is, to some extent, with difference of color in the races.

Theory of the Useful. — Is, then, the *useful* the beautiful? This theory next claims our attention. The foundation of the emotions awakened in us by the beautiful in nature or art, is the perception of utility. We perceive in the object a fitness to conduce, in some way, to our welfare, to serve, in some way, our purposes, and for this reason, we are pleased The utility is the beauty.

The most useful not the most beautiful. — That the beauty of an object may, in our perception, be heightened by the discovery of its fitness to produce some desirable end, or rather, that this may add somewhat to the pleasure we feel in view of the object, is quite possible; that this is the main element and grand secret, either of that emotion on our part, or of the beauty which gives rise to it, is not possible. It is sufficient to say, that, if this were so, the most useful things ought, of course, to be the most beautiful. Is this the case? A stream of water conducted along a ship canal is more useful than the same stream tumbling over the rapids, or plunging over a perpendicular precipice. Is it also more beautiful? A swine's snout, to use a homely but forcible illustration of Burke, is admirably fitted to serve the purpose for which it was intended; useful exceedingly for rooting and grubbing, but not, on the whole, very beautiful.

Dissimilarity of the two. — Indeed, few things can be more unlike, in their effect upon the mind, in the nature of the emotions they excite, than the useful and the beautiful. This has been well shown by Jouffroy in his analysis of the beautiful. Kant has also clearly pointed out the same thing. Both please us, but not in the same way, not for the same reason. We love the one for its advantage to us, the other *for its own sake.* The one is a purely selfish, the other a purely disinterested love, a noble, elevated emotion. The two are heaven-wide asunder. The glorious sunset is of no

earthly use to us, otherwise than mere beauty and pleasure are in themselves of use. The gorgeous spectacle becomes at once degraded in our own estimation by the very question of its possible utility. We love it not for the benefit it confers, the use we can make of it, but for its own sake, its own sweet beauty, because it is what it is. There it lies, pencilled on the clouds, evanescent, momentarily changing. There it is, afar off. You cannot reach it, cannot command its stay, have no wish to appropriate it to yourself, no desire to turn it to your own account, or reap any benefit from it, other than the mere enjoyment; still you admire it, still it is beautiful to you. Of what use to the beholder is the ruddy glow and flash of sunrise on the Alpine summits as seen from the Rhigi or Mount Blanc? Of what use, in fact, is beauty in any case, other than as it may be the means of refining the taste, and elevating the mind? That it has this advantage we are free to admit; and it is certainly one of the noblest uses to which any thing can be made subservient; but surely this cannot be what is meant when we are told that beauty *consists* in utility, for this would be simply affirming that the cause consists in the effect produced. Beauty refines and elevates the mind, is a means of æsthetic and moral culture; as such it is of use, and in that use lies the secret and the subtle essence of beauty itself. In other words, a given cause produces a given effect, and that effect *constitutes* the cause!

The utility of Beauty an incidental Circumstance. — The truth is, that while the beautiful does elevate and ennoble the mind, and thus furnish the means of the highest æsthetic and moral culture, this advantage is wholly incidental to the existence of beauty, not even a necessary or invariable effect, much less the constituting element. This is not the reason why we admire the beautiful. It does not enter into our thoughts at the moment. As on the summit of Rhigi, I watch the play of the first rosy light on the snowy peaks that lift themselves in stately grandeur along the opposite

horizon, I am not thinking, at that moment, of the effect produced on my own mind, by the spectacle before me; I am wholly absorbed in the magnificence of the scene itself. It is beautiful, not because it is useful, not because it elevates my mind, and cultivates my taste, and contributes, in various ways, to my development, but it produces these effects because it is beautiful. The very thought of the useful is almost enough, in such cases, to extinguish the sentiment of the beautiful.

Beauty cannot be appropriated. — That only is useful which can be *appropriated*, and turned to account. But the beautiful, in its very nature, cannot be appropriated or possessed. You may appropriate the picture, the statue, the mountain, the waterfall, but not their beauty. These do not belong to you, and never can. They are the property of every beholder. Hence, as Jouffroy has well observed, the possession of a beautiful object never fully satisfies. The beauty is ideal, and cannot be possessed. It is an ethereal spirit that floats away as a silver cloud, ever near, yet ever beyond your grasp. It is a bow, spanning the blue arch, many-colored, wonderful; yonder, just yonder, is its base, where the rosy light seems to hover over the wood, and touch gently the earth; but you cannot, by any flight or speed of travel, come up with it. It is here, there, everywhere, except where you are. It is given you to behold, not to possess it.

Theory of Unity in Variety. — Evidently we must seek elsewhere than in utility the dwelling-place of beauty. The secret of her tabernacle is not there. Let us see, then, if *unity in variety* may not be, as some affirm, the principle of the beautiful. The intellect demands a general unity, as, *e. g.*, in a piece of music, a painting, or a play, and is not satisfied unless it can perceive such unity. The parts must be not only connected but related, and that relation must be obvious. At the same time the sensibility demands variety, as *e g.*, of tone and time in the music, of color and shade

in the painting, of expression in both. The same note of a musical instrument continuously produced, or the same color unvaried in the painting, would be intolerable. The due combination of these two principles, unity and variety, say these writers, constitutes what we call beauty in an object. The waving line of Hogarth may be taken as an illustration of this principle.

Objection to this View. — Without entering fully into the discussion of this theory, it may be sufficient to say, that while the principle now named does enter, in some degree, into our conception of the beautiful, it can hardly be admitted as the ground and cause, or even as the chief element, of beauty. Not every thing is beautiful which presents both unity and variety. Some things, on the other hand, are beautiful which lack this combination. Some colors are beautiful, taken by themselves, and the same is true of certain forms, which, nevertheless, lack the element of variety. In the construction of certain mathematical figures, which please the eye by their symmetry and exactness, we may detect, perhaps, the operation of this principle. On the other hand, it will not account for the pleasure we feel when the eye rests upon a particular color that is agreeable. A bright red pebble, or a bit of stained glass, appears to a child very beautiful. It is the color that is the object of his admiration. We have simple unity but no variety there. On the other hand, in a beautiful sunset we have the greatest variety, but not unity, other than simply a numerical unity.

We cannot, on the whole, accept this theory as a complete and satisfactory resolution of the problem of the beautiful, although it is supported by the eminent authority of Cousin, who, while he regards all beauty as ultimately pertaining to the spiritual nature, still finds in the principle, now under consideration, its chief characteristic so far as it assumes external form.

Order and Proportion. — Shall we then, with Aristotle, Augustine, Andrè, and others, ancient and modern, seek the

hidden principle of beauty in the elements of *order and proportion?* What are order and proportion? Order is the arrangement of the several parts of a composite body. Proportion is the relation of the several parts to each other in space and time. Not every possible arrangement is order, but only that which appears conducive to the end designed, and not every possible arrangement of parts is proportion, but only that which furthers the end to be accomplished. To place the human eye in the back part of the head, the limbs remaining as they now are, would be *disorder*, for motion must in that case, as now, be forward, while the eye, looking backward, could no longer survey the path we tread. The limbs of the Arabian steed, designed for swiftness of locomotion, bear a proportion to the other parts of the body, somewhat different from that which the limbs of the swine, designed chiefly for support, and for movements slower, and over shorter distances, bear to his general frame. The proportion of each, however, is perfect as it is. Exchange each for each, and they are quite out of proportion.

Only another Form of the Useful. — Since order and proportion, then, have always reference to the end proposed to be accomplished, we have, in fact, in these elements, only another form of the useful, which, as we have already seen, is not the principle of beauty.

Not always Beautiful. — Accordingly, we find that order and proportion do not, in themselves, and when unassociated with other elements, invariably strike us as beautiful. The leg of the swine is as fine a specimen of order and proportion as that of the Arab courser, but is not so much admired for its beauty. It must be admitted, however, that these elements in combination, do with others, enter more or less fully into the formation of the beautiful, are intimately associated with its external forms. The absence or violation of these principles would mar the beauty of the object.

The spiritual Theory. — The only theory of beauty remaining to be noticed is the spiritual theory, which makes

beauty consist, not in matter as such, nor in any mere arrangement of matter in itself considered, but in the manifestation or expression, under these sensible material forms, of the higher, the *hidden spiritual nature*, or element, appealing thus to our own spiritual nature, which is thereby awakened to sympathy. In the sensible world about us we find two elements diverse and distinct each from the other, the idea and the form, spirit and matter, the invisible and the visible. In objects that are beautiful we find these two elements united in such a way, that the one expresses or manifests the other, the form expresses the idea, the body expresses the spirit, the visible manifests the invisible, and our own spiritual nature recognizing its like, holds communion and sympathy with it as thus expressed. That which constitutes the beautiful, then, is this manifestation, under sensible forms, and so to our senses, of the higher and spiritual principle which is the life and soul of things.

Relation of the Beautiful to the True and the Good. — It differs from the true in that the true is not, like the beautiful, expressed under sensible forms, but is isolated, pure, abstract, not addressed to the senses, but to reason. It differs from the good, in that the good always proposes an end to be accomplished, and involves the idea of obligation, while the beautiful, on the contrary, proposes no end to be accomplished, acknowledges no obligation or necessity, but is purely free and spontaneous. Yet, though differing in these aspects, the good, the true, and the beautiful, are at basis essentially the same, even as old Plato taught, differing rather in their mode of expression, and the relations which they sustain to us, than in essence.

Relation of the Beautiful to the Sublime. — The relation of the beautiful to the *sublime*, according to this theory, is simply this: In the beautiful, the invisible and the visible, the finite and the infinite, are harmoniously blended. In the sublime, the spiritual element predominates, the harmony is disturbed, the sensible is overborne by the infinite, and our

spirits are agitated by the presence, in an unwonted degree of the higher element of our own being. Hence, while the one pleases, the other awes and subdues us.

Application of this Theory. — Such, in brief outline, is the theory. Let us see now whether it is applicable to the different forms of beauty, and whether it furnishes a satisfactory explanation and account of them.

Surveying the different forms of being, we find among them different degrees of beauty. Does, then, every thing which is beautiful express or manifest, through the medium, and, as it were, under the veil, of the material form, the presence of the invisible spiritual element? and the more beautiful it is, does it so much the more plainly and directly manifest this element?

The Theory applied to inorganic Forms. — And first, to begin with the lowest, how is it with the inanimate, inorganic, merely chemical forms of matter? Here we have certain lines, certain figures, certain colors, that we call beautiful. What do they express of the higher or spiritual element of being? In themselves, and directly, they express nothing, perhaps. Yet are they not, after all, suggestive, symbolical of an idea and spirit dwelling, not in them, but in him who made them, of the Creator's idea and spirit, inarticulate expressions, mere natural signs, of a higher principle than dwells in these poor forms? Do they not suggest and express to us ideas of grace, elegance, delicacy, and the like? Do we not find ourselves attracted by, and, in a sort, in sympathy with these forms, as thus significant and expressive? Is it not thus that lines, and figures, and mathematical forms, the regular and sharply cut angles of the crystal, the light that flashes on its polished surface, or lies hid in beautiful color within it, the order, proportion, and movement, by fixed laws, of the various forms of matter, appear beautiful to us? For what are order, proportion, regularity, harmony, and movement, by fixed laws, and what are elegance, and

grace of outline and figure, but so many signs and expressions of a higher intelligence?

Theory applied to vegetable Forms. — Passing onward and upward in the scale of being, taking into view, now, the organic forms of vegetable life, do we not find a more definite articulate expression of the spiritual and invisible under the material form? The flower that blooms in our path, the sturdy tree that throws out its branches against the sky, or droops pensively, as if weighed down by some hidden sorrow, address us more directly, speak more intimately to our spirits, than the mere crystal can do, however elegant its form, or definite its outline. They express sentiments, not ideas merely. They respond to the sensibilities, they appeal to the inner life of the soul. They are strong or weak, timid or bold, joyous or melancholy. It requires no vigorous exercise of fancy to attribute to them the sensibilities which they awaken in us. When in lively communion and sympathy with nature, we can hardly resist the conviction that the emotions which she calls into play in our own bosoms are, somehow, her own emotions also; that under these forms so expressive, so full of meaning to us, there lurks an intelligence, a soul.

To the animal Kingdom. — In the animal kingdom, this invisible spiritual principle, the energy that lies hidden under all forms of animate and organized substance, becomes yet more strongly and obviously developed. The approach is nearer, and the appeal is more direct, to our own spiritual nature. We perceive signs, not to be mistaken, of intelligence and of feeling; passion betrays itself, love, hate, fear the very principles of our own spiritual being, the very image of our own higher nature. Beauty and deformity are now more strongly marked than in the lower degrees of the scale of being.

To Man. — In man we reach the highest stage of animal existence with which we are conversant, the highest degree of life, intelligence, soul — the being in whom the spiritual

shines forth most clearly through the material veil — and, shall we not say also, the being most beautiful of all? The highest style of beauty to be found in nature pertains to the human form, as animated and lighted up by the intelligence within. It is the expression of the soul that constitutes this superior beauty. It is that which looks out at the eye, which sits in calm majesty on the brow, lurks in the lip, smiles on the cheek, is set forth in the chiselled lines and features of the countenance, in the general contour of figure and form, and the particular shading and expression of the several parts, in the movement, and gesture, and tone; it is this looking out of the invisible spirit that dwells within, through the portals of the visible, this manifestation of the higher nature, that we admire and love; this constitutes to us the beauty of our species. Hence it is that certain features, not in themselves, perhaps, particularly attractive, wanting, it may be, in certain regularity of outline, or in certain delicacy and softness, are still invested with a peculiar charm and radiance of beauty from their peculiar expressiveness and animation. The light of genius, or the superior glow of sympathy, and a noble heart, play upon those plain, and, it may be, homely features, and light them up with a brilliant and regal beauty. Those, as every artist knows, are precisely the features most difficult to portray. The expression changes with the instant. The beauty flashes, and is gone, or gives place to a still higher beauty, as the light that plays in fitful corruscations along the northern sky, coming and going, but never still.

Man not the highest Type of Beauty.—Is then the human form the highest expression of the principle of beauty? It can hardly be; for in man, as in all things on the earth, is mingled along with the beauty much that is deformed, with the excellence much imperfection. We can conceive forms superior to his, faces radiant with a beauty that sin has never darkened, nor passion nor sorrow dimmed. We can conceive forms of beauty more perfect, purer, brighter,

loftier than any thing that human eye hath seen or human ear heard. We conceive them, however, as existing only under some sensible form, as manifest in some way to sense, and the beauty with which we invest them is the beauty of the spiritual expressing itself in the outward and visible. It is the province of imagination to fashion these conceptions, and of art to attempt their realization. This, the poet, the painter, the sculptor, the architect, the orator, each in his way, is ever striving to do, to present under sensible forms, the ideal of a more perfect loveliness and excellence than the actual world affords.

This ideal can never be adequately and fully represented The perfection of beauty dwells alone with God.

Consideration in favor of the Theory now explained. — It is in favor of the theory now under consideration, that it seems thus more nearly to meet and account for the various phenomena of beauty, than any other of those which have passed under our review, and that it accounts for them, withal, on a principle so simple and obvious. The crystal, the violet, the graceful spreading elm, the drooping willow, the statue, the painting, the musical composition, the grand cathedral, whatever in nature, whatever in art is beautiful. all mean something, all express something, and in this lies their beauty; and we are moved by them, because we, who have a soul, and in whom the spiritual nature predominates, can understand and sympathize with that which these forms of nature and art, in their semi-articulate way, seem all striving to express.

The Ideas thus expressed pertain not to Nature but to the divine Mind. — It is not necessary that, with the ancient Greeks, we should conceive of nature, as having herself an intelligent soul of these forms as themselves conscious of their own meaning and beauty. It is enough that we recognize them as conveying a sentiment and meaning not their own, but his who made them, and made them representative and expressive of his own beautiful thought.

Words are not the only modes of expression. The soul speaks more earnestly and eloquently often in signs than in words. And when God speaks to men, he does it not always in the barren forms of human speech, but in the flower that he places by my path, in the tree, the mountain, the rolling ocean, the azure firmament. These are his *words;* and they are beautiful, and, when he will, they are terrible. Happy he who, in all these manifestations, recognizes the voice of God.

§ II. — Cognizance of the Beautiful.

Beauty an Object of Cognition. — We have treated, in the preceding section, of the idea of the beautiful, in itself considered. We proceed to investigate the action of the mind as cognizant of the beautiful in its actual manifestations, whether in nature or art. Beauty, as we have found reason to believe, is not a conception merely, existing only in the mind, but a quality of certain objects. As such it has objective value and existence, and the mind is cognizant of it as such, perceives it, observes it, compares it and the object to which it pertains with other like and unlike objects, judges and decides respecting it. This quality of objects makes its appeal, as do all objects of perception, first to the senses, and through them to the mind. There is thus awakened in the mind, or suggested to it, the original and intuitive conception of the beautiful; there is also, and beside this, the cognizance by the mind of the beautiful as an actual and present reality manifest in the object before it As it perceives other objects of a like nature, it classes them with the preceding, compares them severally, judges of their respective merits, their respective degrees and kinds of beauty. This discriminating power of the mind, as exercised upon the various objects of beauty and sublimity, whether in nature or art, we may designate by the general name of *taste*

Nature of this Power. — There has been much difference of opinion as to the precise nature of this power, whether it is a distinct faculty of the mind, or the simple exercise of some faculty already known and described, whether it is of the nature of intellect, or of emotion, or the combination of both. Hence the various definitions of taste which have been given by different writers, some regarding it as strictly an intellectual faculty, others as an emotion, while the greater number regard it as including the action both of the intellect in perceiving, and of the sensibility in feeling, whatever is beautiful and sublime.

What has been already said, sufficiently indicates with which of these general views our own most nearly accords. We use the term taste to denote the mind's power of cognizing the beautiful, a power of knowing, of discriminating, rather than of feeling, an exercise of judgment and the reflective power, directed to one particular class of objects, rather than any distinct faculty of the mind. Feeling is doubtless awakened on the perception of the beautiful; it may even precede the judgment by which we decide that the object before us is truly beautiful; but the feeling is not *itself* the perception, or the judgment; is not itself *taste*, whatever may be its relation to taste.

Proposed Investigation. — As this is a matter of some importance to a correct psychology, and also of much difference of opinion, it seems necessary, for purposes of science, to investigate somewhat carefully the nature of this form of mental activity. It is not a matter to be settled by authority, by arbitrary definition, or dogmatic assertion. We must look at the views and opinions of others, and at the reasons for those opinions.

Definitions. — As preliminary to such investigation, I shall present some of the definitions of taste, given by the more prominent writers, representing each of the leading views already indicated.

Blair defines it "a power of receiving pleasure from the

beauties of nature and art." Montesquieu, a French author of distinction, defines it "something which attaches us to certain objects by the power of an internal sense or feeling." Gerard, author of an Essay on Taste, makes it consist in the improvement of the internal senses, viz., sense of novelty, sublimity, beauty, imitation, harmony, etc. Accordant with this are the lines of Akenside:

> "What, then, is taste but those internal powers,
> Active and strong, and feelingly alive
> To each fine impulse?"

Nature of these Definitions. — The definitions now given, it will be perceived, make taste a matter of *sensibility*, of mere *feeling*, a sensation or sense, a passive faculty of being pleased with the beauties of nature and art.

Another Class of Definitions. — Differing from this, others have carefully distinguished between the rational and emotional elements, the power of *discriminating* and the power of *feeling*, and have made taste to consist properly in the former. Of this class is Brown. M'Dermot also takes the same view. This author, in his critical dissertation on the nature and principles of taste, defines it as the *power of discriminating* those qualities of sensible and intellectual being, which, from the invisible harmony that exists between them and our nature, excite in us pleasant emotions. The emotion, however, though it may be the parent of taste, he would not regard as a constituent element of it.

Definitions combining both Elements. — The greater number, however, of those who have written on this subject, have combined in their definitions of taste both these elements, the power of perceiving and the power of feeling. So Burke: "That faculty, or those faculties of the mind which *are affected with*, or which *form a judgment of*, the works of imagination and the elegant arts." Alison: "That faculty of the mind by which we *perceive* and *enjoy* whatever is beautiful or sublime in the works of nature and art"

Reid also makes it consist in "the power of discerning and relishing" these objects. Voltaire makes the feeling quite as essential as the perception. Benard, Professor of Philosophy in the College Royal at Rouen, in the excellent article on taste, in the Dictionnaire des Sciences Philosophiques, defines taste as "that faculty of the mind which makes us to discern and feel the beauties of nature, and whatever is excellent in works of art." It is a compound faculty, according to this author, inhabiting at once both worlds, that of sense and that of reason. Beauty reveals itself to us only under sensible forms, the faculty which contemplates the beautiful, therefore, seizes it only in its sensible manifestation. The pure idea, on the other hand, in its abstract nature, addresses not the taste but the understanding; it appears to us, not as the beautiful, but as the true. Taste, then, has to do with sense. Still, says Benard, "the essential element which constitutes it, pertains to the reason; it is, in truth, only one of the forms of this sovereign power, which takes different names according to the objects which it deals with; *reason*, properly speaking, when it employs itself in the sphere of speculative truth; *conscience*, when it reveals to us truths moral or practical; *taste*, when it appreciates the beauty and suitableness of objects in the real world, or of works of art."

These three Classes comprehensive. — Other authorities and definitions, almost without number, might be added, but they fall essentially under the three classes now specified. Which of these views, then, is the correct and true one? is the question now before us. Is taste a matter of feeling, or is it an intellectual discernment, or is it both? Evidently we cannot depend on authority for the decision of this question, since authorities differ. We must examine for ourselves.

Etymology of the Term. — To some extent the word itself may guide us. Borrowed, as are most if not all words expressing mental states and acts, from the sphere of sense,

there was doubtless some reason why this word in particular was selected to denote the power of the mind now under consideration. Some close analogy, doubtless, was supposed to exist between the physical state denoted by this word in its primary sense, and the mental faculty to which we refer, so that, in seeking for a term by which to designate that intellectual faculty, none would more readily present itself, as appropriate and suggestive of the mental state intended, than the one in question. This analogy, whatever it be, while it cannot be taken as decisive of the question before us, is still an element not to be overlooked by the psychologist. What, then, is the analogy? How comes this word — *taste* — to be used, rather than any other, to denote the idea and power now under consideration?

Taste as a Sense. — In the domain of sense, certain objects brought in contact with the appropriate physical organ, affect us as sweet, sour, bitter, etc. This is purely an affection of the sensibility, mere feeling. We say the thing *tastes* so and so. The power of distinguishing such qualities we call the power or sense of taste. Primarily, mere sensation, mere feeling, we transfer the word to denote the power of judging by means of that sensation. There is, in the first instance, an affection of the organ by the object brought in contact with it, of which affection we are cognizant; then follows an intellectual perception or judgment that the object thus affecting us, possesses such and such qualities, is sweet, sour, bitter, salt, etc., The sensation affords the ground of the judgment. The latter is based upon the former. The sensation, the simple feeling, affords the means of discriminating, judging, distinguishing, and to this latter power or process the word taste, in the physical sense, is more frequently appropriated. We say of such or such a man, his taste is acute, or his taste is impaired, or dull, etc., meaning his power of perceiving and distinguishing the various properties of objects which affect the sense of taste.

Analogy of this to the mental Process called Taste. — It is easy to perceive, now, the analogy between the physical power and process thus described, and the psychological faculty under consideration, to which the name primarily denoting the former has been transferred. Objects in nature and art present themselves to the observation, and awaken pleasure as beautiful, or excite disgust as the opposite. A mere matter of sensibility, of feeling, this. Presently, however, we begin to notice, not the mere feeling of pleasure or aversion, but the character of the object that awakens it, we discriminate, we attribute to the object such and such qualities, take cognizance of it as possessing those qualities. This discriminating power, this judgment of the mind that the object possesses such properties, we call taste. As, in the sphere of sense, the feeling awakened affords the means of judging and distinguishing, as to the qualities of the object, so here. The beautiful awakens sensation — a vivid feeling of pleasure, delight, admiration; deformity awakens the reverse; and this feeling enables us to judge of the object, as regards the property in question, viz., beauty or deformity, whether, and how far, as compared with other objects of the mind, it possesses this quality. In either case — the physical and the psychological — the process begins with sensation or feeling, but passes on at once into the domain of intellect, the sphere of understanding or judgment; and while, in either case, the word taste may, without impropriety, be used to denote the feeling or susceptibility of impression which lies at the foundation of the intellectual process, it is more strictly appropriate to the faculty of discriminating the objects, and the qualities of objects, which awaken in us the given emotions.

So far as the word itself can guide us, then, it would seem to be in the direction now indicated.

Appeal to Consciousness. — Analogy, however, may mislead us. We must not base a doctrine or decide a question in psychology upon the meaning of a single term Upon

observation and consciousness of what actually passes in our own minds, in view of the beautiful, we must, after all, rely. Let us place ourselves, then, in the presence of the beautiful in nature or art, and observe the various mental phenomena that present themselves to our consciousness.

I stand before a statue of Thorwalsden or Canova. The spell and inspiration of high art are upon me. What passes now in my mind?

The first Element. — First of all, I am conscious of almost instant emotion in view of the object, an emotion of pleasure and delight. No sooner do my eyes rest upon the chiselled form that stands in faultless and wondrous beauty before me, than this emotion awakens. It springs into play, as a fountain springs out of the earth by its own spontaneous energy, or, as the light plays on the mountain tops, and flushes their snowy summits, when the sun rises on the Alps. It is by no volition of mine that this takes place.

A second Element. — Along with the emotion, there is another thing of which, also, I am conscious. Scarcely have my eyes taken in the form and proportions on which they rest with delight, scarcely has the first thrill of emotion, thus awakened, made itself known to the consciousness, when I find myself exclaiming, "How beautiful!" The soul says it; perhaps the lips utter it. If not an oral, it is, at least, a mental affirmation. The mind perceives, at a glance, the presence of beauty, recognizes its divinity, and pays homage at its shrine; not now the blind homage of feeling, merely, but the clear-sighted perception of the intellect, the sure decision of the understanding affirming, with authority 'That which thou perceivest and admirest is beautiful.' This is an act of judgment, based, however, on the previous awakening of the sensibility. I know, because I feel.

A third Element. — In addition to these, there may, or may not be, another phase of mental action. I may begin, presently, to observe, with a more careful eye, the work before me, and form a critical estimate of it, scan its outline,

its several parts, its effect as a whole, ascertain its merits, and its defects as a work of art, study its design, its idea, and how well it expresses that idea, and fulfills that design. I seek to know what it is in the piece that pleases me, and why it pleases me. This may, or may not, take place. Whether it shall occur, or not, will depend on the state of the mind at the moment, the circumstances in which it is placed, its previous training and culture, its habits of thought. This, too, is an exercise of judgment, comparing, distinguishing, deciding; a purely intellectual process. It is not so much a new element, as a distinct phase of that last named. It is the mind deciding and affirming now, not merely that the object is beautiful, but *in what* and *why* it is so.

Uniformity of Results. — I change now the experiment. I repeat it. I place myself before other works, before works of other artists — works of the painter, the architect, the musician, the poet, the orator. Whatever is beautiful, in art or nature, I observe. I perceive, in all cases, the same results, the occurrence of essentially the same mental phenomena. I conclude that these effects are produced, not fortuitously, but according to the constitution of my nature; that they are not specific instances, but general laws of mental action; in other words, that the mind possesses a susceptibility of being impressed in this manner by such objects, and also a faculty of judging and discriminating as above described. To these two elements, essentially, then, do the mental phenomena occasioned by the presence of the beautiful, reduce themselves.

The Question. — Which, then, of these elements is it that answers to the idea of taste, as used to denote a power of the mind? Is it the susceptibility of emotion in view of the beautiful, the power of feeling; or is it the faculty of judging and discriminating; or is it both combined? Our definitions, as we have seen, include both; the word, itself, may denote either; both are comprised in our analysis of the mental phenomena in view of the beautiful.

Not the first. — Is it the first? I think not. Taste is not mere emotion, nor mere susceptibility of emotion. A child or a savage may be deficient in taste, yet they may be as deeply moved in view of the beautiful, in nature or art, as the man of cultivated mind; nay, their emotion may exceed his. They may regard, with great delight and admiration, what he will view with entire indifference. So far from indicating a high degree of taste, the very susceptibility of emotion, in such cases, may be the sure indication of a want of taste. They are pleased with that which a cultivated and correct taste would condemn. The power of being moved is simply sensibility, and sensibility is not taste, however closely they may be related.

Taste the intellectual Element. — Is taste, then, the power of mental discrimination which enables me to say that such and such things are, or are not, beautiful, and which, in some cases, perhaps, enables me to decide why, or wherein they are so? Does it, in a word, denote the *intellectual* rather than the *emotional* element of the process? I am inclined to think this the more correct view. Susceptibility of emotion is, doubtless, concerned in the matter. It has to do with taste. It may be even the ground and foundation of its exercise, nay, of its existence. But it is not, itself, taste, and should not be included, therefore, in the definition.

Reason for distinguishing the two. — As we distinguish, in philosophical investigation, between an emotion and the intellectual perception that precedes and gives rise to it, or between the perception and the sensation on which it is founded, so I would distinguish *taste*, or the intellectual perception of the beautiful, from the *sensation* or *feeling* awakened in view of the object. The fact that both elements exist, and enter into the series of mental phenomena in view of the beautiful, is no reason why they should both be designated by the same term, or included in the same definition, but, rather, it is a reason why they should be carefully distinguished.

The precise nature of this faculty may be more distinctly perceived, if we consider, more particularly, its relation to the *judgment*, and also to the *sensibility*.

Taste, as related to Judgment. — According to the view now taken, taste is only a modification, or rather a particular direction of that general power of the mind which we call *judgment;* it is judgment exercised about the beautiful. It is the office of the judgment to form opinions and beliefs, to inform us of relations, to decide that things are thus and thus, that this is this, and that is that. As employed in different departments of thought, it appears under different forms, and is known under diverse names. As employed about the actual and sensible, we call it understanding; in the sphere of abstract truth it works under the cognomen of reason; in the sphere of practical truth, the thing that is good and right to be done by me, it is known as conscience; in the sphere of the ideal and the beautiful it is taste. In all these departments of mental activity it is exercised, employs itself upon all these subjects, giving us opinion, belief, knowledge, as to them all. The judgment as thus exercised in relation to the beautiful, that is to say, the mind observing, comparing, discriminating, deciding, forming the opinion, or reaching it may be the positive knowledge that this thing is, or is not, beautiful — for this is simply what we mean by judgment in any particular instance — judgment, as thus exercised, is known by the name of *taste*. More strictly speaking, it is not so much the *exercise* of the judgment in this particular way in given instances, as the *foundation* or *ground* of that exercise, the *discriminating faculty* or *power* of the mind by virtue of which it thus operates.

Judgment does not furnish the Ideas. — Does, then, the judgment, it may be asked, give us originally the ideas of the true, the beautiful, and the good? This we do not affirm. Judgment is not the source of ideas, certainly not of those now mentioned. It does not originate them. Their origin and awakening in the human mind is we

should say, on this wise. The beautiful, the true, the good, exist as simple, absolute, eternal principles. They are in the divine mind. They are in the divine works. In a sense they are independent of Deity. He does not create them. He cannot reverse them or change their nature. He works according to them. They are not created by, but only *manifested in*, what God does. We are created with a nature so formed and endowed as to be capable of recognizing these principles and being impressed by them. The consequence is, that no sooner do we open the eye of reason and intelligence upon that which lies around and passes before us, in the world, than the idea of the true, the beautiful, the morally good, is awakened in the mind. We instinctively perceive and feel their presence in the objects presented to our notice. They are the product of our rational intelligence, brought into contact, through sense, with the world in which we dwell. The idea of beauty or of the right, thus once awakened in the mind, when afterward examples, or, it may be, violations, of these principles occur, the judgment is exercised in deciding that the cases presented do or do not properly fall under the class thus designated; and the judgment thus exercised in respect to the beautiful, we call *taste*, in respect to the right, *conscience*.

Taste as now defined. — As now defined, taste is, as to its principle, *the discriminating power of the mind with respect to the beautiful or sublime in nature or art;* that certain state, quality, or condition of the mental powers and the mental culture, the result partly of native difference and endowment, partly of education and habit, by virtue of which we are able to judge more or less correctly as to the beauty or deformity, the merit or demerit of whatever presents itself in nature or art as an object of admiration, whether and how far it is in reality beautiful, and of its fitness to awaken in us the emotions that we experience in view thereof. If we are able to observe, compare, discriminate, form opinions and conclusions well and correctly, on these

matters, our taste is good; otherwise bad. Whether it be the one or the other, will depend not entirely on native endowment, not altogether on the degree to which the judgment is cultivated and developed in respect to other matters, but quite as much on the culture and training of the mind with respect to the specific objects of taste, viz., the beauties of nature and art. Men of strong minds, good understanding, and sound judgment in other matters, are not necessarily men of good taste. Like every other faculty of the mind, taste requires cultivation.

Taste and good Taste. — It is necessary to distinguish between taste, and good taste. Many writers use the terms indifferently, as when we say such a one is a man of taste, meaning of good taste, or such a one has no taste whatever, meaning that he is a man of bad taste. Strictly speaking, the savage who rejoices in the disfigurement of his person by tattooing, paint, and feathers, is a man of *taste*, as really as the Broadway dandy, or the Parisian exquisite. He has his faculty of judging in such matters, and exercises it — his standard of judging, and comes up to it. He is a man of taste, but not of correct taste. He has his own notions, but they do not agree with ours. He violates all the rules and principles by which well-informed minds are guided in such matters. He shocks our notions of fitness and propriety, excites in us emotions of disgust, or of the ludicrous, and, on the whole, we vote him down as a man of no authority in such matters.

As related to Sensibility. — Thus far we have spoken of taste only as related to the judgment. It is necessary to consider also its relation to the *sensibility*. Taste and sensibility are very often confounded. They are, in reality, quite distinct. Sensibility, so far as we are at present concerned with it, is the mind's *capability of emotion* in view of the beautiful or sublime. Taste is its *capability of judging*, in view of the same. Viewed as acts, rather than as states or powers of the mind, sensibility is the feeling awakened by

view of a beautiful object; taste is the judgment or opinion formed respecting it. In the case already supposed, I stand before a fine statue or painting. It moves me, attracts me, fills me with delight and admiration. In this, it is not directly and immediately my taste, but my sensibility, that is affected and brought into play. I begin to judge of the object before me as a work of art, to form an opinion respecting its merits and demerits; and, in so doing, my taste is exercised.

The two not always proportional. — Not only are the two principles distinct, but not always do they exist in equal proportion and development in the same mind. Persons of the liveliest sensibility are not always, perhaps not generally, persons of the nicest taste. The child, the uneducated peasant, the negro, are as highly delighted with beautiful forms and beautiful colors as the philosopher, but could not tell you so well why they were moved, or what it was, in the object, that pleased them; neither would they discriminate so well the truly beautiful from that which is not worthy of admiration. If there may be sensibility without taste, so, on the other hand, a high degree of taste is not always accompanied with a corresponding degree of sensibility. The practised connoisseur is not always the man who enjoys the most at sight of a fine picture. The skillful musician has much better taste in music than the child that listens, with mingled wonder and delight, to his playing; but we have only to glance at the countenance of each, to see at once which feels the most.

Sensibility not inconsistent with Taste. — I should not, however, infer from this, that a high degree of sensibility is inconsistent with a high degree of taste. This was Mr. Stewart's opinion. The feeling, he would say, will be likely to interfere with the judgment, in such a case. Doubtless, where the feeling is highly wrought upon and excited, it may, for the time, interfere with the cool and deliberate exercise of the judgment. Yet, nevertheless, if sensibility be

wanting, there will not be likely to be much taste. If I feel no pleasure at sight of a beautiful landscape or painting, I shall not be likely to trouble myself much about its comparative merits or defects. It is useless, in such a case, to inquire what pleases me, or why I am pleased, when, in truth, nothing pleases me. There is no motive for the exercise of judgment in such a case, neither is there an opportunity for its action. The very foundation for such an exercise is wanting. A lively sensibility is the basis of a correct taste, the ground on which it must rest, the spring and life of its action. The two are related somewhat as genius and learning which are not always found in equal degree, yet are by no means inconsistent with each other. There may be a high degree of mental strength and activity, without corresponding acquisitions; yet there can hardly be learning without some degree of mental power and activity. There may be sensibility without much taste, but hardly much taste without sensibility. Taste is, in a great measure, acquired, cultivated, an art; sensibility, a native endowment. It may be developed, strengthened, educated, but not acquired. Genius produces, sensibility admires, taste judges or decides. Their action is reciprocal. If taste corrects and restrains the too ready or too extravagant sensibility, the latter, on the other hand, furnishes the ground and data upon which, after all, taste must rely in its decisions.

Cultivation of Taste. — We have investigated, with some care, as was proposed, the nature of that power of the mind which takes cognizance of the beautiful. On the cultivation of this power, a few words must be said in this connection. Taste is an intellectual faculty, a perceptive power, a matter of judgment, and, as such, both admits and requires cultivation. No forms of mental activity depend more on education and exercise, for their full development, than that class to which we give the general name of judgment, and no form of judgment more than that which we call taste. The mind uncultivated, untrained, unused to the nice perception

of the beautiful, can no more judge correctly, in matters of taste, than the mind unaccustomed to judge of the distance, magnitude, or chemical properties of bodies, can form correct decisions upon these subjects. It must be trained by art, and strengthened by exercise. It must be made familiar with the laws, and conversant with the forms of beauty. It must be taught to observe and study the beautiful, in nature and in art, to discriminate, to compare, to judge The works in literature and in art which have received the approbation of time, and the honorable verdict of mankind, as well as the objects in nature which have commanded the admiration of the race, must become familiar, not by observation only, but by careful study. Thus may taste be cultivated.

Historical Sketch.

View of Plato. — Among the ancients, *Plato* was, perhaps, the first to distinguish the idea of the beautiful from other kindred ideas, and to point out its affinity with the true and the good, thus recognizing in it something immutable and eternal. In making the good and the beautiful identical, however, he mistakes the true character and end of art. Previously to Plato, and even by him, art and the beautiful were treated only in connection with ethics and politics: æsthetics, as a distinct department of science, was not known to the ancients.

Of Aristotle. — *Aristotle* has not treated of the beautiful but only of dramatic art. Poetry, he thinks, originates in the tendency to imitate, and the desire to know. Tragedy is the imitation of *the better*. Painting should represent, in like manner, not *what is*, but what *ought to be*. In this sense, may be understood his profound remark, that *poetry is more true than history*.

Plotinus and Augustine. — After Aristotle, *Plotinus* and *Augustine* alone, among the ancients, have treated of the beautiful. The work of Augustine is not extant. It is

known that he made beauty consist in unity and fitness of parts, as in music. The treatise of Plotinus is regarded as at once beautiful and profound. Material beauty is, with him, only the expression or reflection of spiritual beauty. The soul alone, the mind, is beautiful, and in loving the beautiful, the soul loves its own image as there expressed. Hence, the soul must, itself, be beautiful, in order to comprehend and feel beauty. The tendency of this theory is to mysticism.

Longinus and Quintilian. — Longinus, and Quintilian, treat of the sublime, only with reference to eloquence and oratory; so, also, Horace, of art, as having to do with poetry.

Bacon. — Among the moderns, *Bacon* recognizes the fine arts as among the sciences, and poetry as one of the three chief branches of human knowledge, but nowhere, that I am aware, treats of the beautiful, distinctly, as such.

School of Leibnitz. — It was the school of *Leibnitz* and *Wolf* in Germany that first made the beautiful a distinct science. Baumgarten, disciple of Wolf, first conceived this idea. Like Plato, however, he makes the beautiful too nearly identical with the good and with morals.

School of Locke. — In England, the school of *Locke* have much to say of beauty. Shaftesbury and Hutcheson, while they do not clearly distinguish between the beautiful and the good, adopt the theory of unity in variety, as already explained. Hogarth falls into the same class, his idea of beauty being represented by the waving line. Burke does not distinguish sufficiently between the sublime and the terrible.

French Encyclopedists. — In France, the *Encyclopedists* coincide, essentially, with the school of Locke, and treat of the beautiful, chiefly in its moral aspect.

The later Germans. — In Germany, again, *Winckelman*, an artist, and not a philosopher, seizing the spirit of the Greek art, ascribes, as Plato had done, the idea of beauty to

God, from whom it passes into sensible things, as his manifestations.

In opposition to this ideal and divine aspect, *Lessing* takes a more practical view, regarding the beautiful from the stand-point of the *real*. *Herder* and *Goethe* contribute, also, much to the science of æsthetics. All these do little more than prepare the way for *Kant*, who goes more profoundly into the philosophy of the matter. He makes beauty a *subjective* affair, a play of the imagination.

Schiller makes it the joint product of the reason and the sensibility, but still a *subjective* matter, as Kant.

Schelling and Hegel. — *Schelling* develops the spiritual or ideal theory of beauty. *Hegel* carries out this theory and makes a complete science of it, classifies and analyzes the arts. His work is regarded as the first complete discussion of the philosophy of the fine arts. It is characterized by strength, clearness, depth, power of analysis, richness of imagination.

Theory of Jouffroy. — *Jouffroy*, in France, among the later writers, has treated fully, and in an admirable manner, of the philosophy of the beautiful. His theory is derived from that of Hegel, with some modifications. It is essentially the theory last presented in the discussion of the subject in the preceding section, viz., the expression of the spiritual or invisible element under sensible forms. No writer is more worthy of study than Jouffroy. His work is clear, strong, and of admirable power of analysis.

Cousin. — Among the eclectics, *Cousin*, in his treatise on the true, the beautiful, and the good, has many just observations, with much beauty and philosophic clearness of expression.

M'Dermot. — In English, beside the works already referred to, must be noticed the treatise of *M'Dermot* on Taste, in which the nature and objects of taste are fully and well discussed.

CHAPTER IV.

IDEA AND COGNIZANCE OF THE RIGHT.

§ I. — Idea of Right.

The Idea of Right a Conception of the Mind. — Among the conceptions which constitute the furniture of the mind, there is one, which, in many respects, is unlike all others, while, at the same time, it is more important than all others; that is, the notion or idea of *right*.

Universally prevalent. — When we direct our attention to any given instance of the voluntary action of any intelligent rational being, we find ourselves not unfrequently pronouncing upon its character as a *right* or *wrong* act. Especially is this the case when the act contemplated is of a marked and unusual character. The question at once arises, is it right? Or, it may be, without the consciousness of even a question respecting it, our decision follows instantly upon the mental apprehension of the act itself — this thing is right, that thing is wrong. Our decision may be correct or incorrect; our perception of the real nature of the act may be clear or obscure; it may make a stronger or weaker impression on the mind, according to our mental habits, the tone of our mental nature, and the degree to which we have cultivated the moral faculty. There may be minds so degraded, and natures so perverted, that the moral character of an act shall be quite mistaken, or quite overlooked in many cases; or, when perceived, it shall make little impression on them. Even in such minds, however, the *idea* of right and wrong still finds a place, and the understanding applies it, though not perhaps always correctly, to particular instances of human conduct. There is no reason to believe

that any mind possessing ordinary endowments, that degree of reason and intelligence which nature usually bestows, is destitute of this idea, or fails altogether to apply it to its own acts, and those of others.

The Question and its different Answers. — But here an important question presents itself: *Whence come* these ideas and perceptions; their origin? How is it, why is it, that we pronounce an act right or wrong, when once fairly apprehended? How come we by these notions? The fact is admitted; the explanations vary. By one class of writers our ideas of this nature have been ascribed to *education* and *fashion;* by another, to *legal restriction*, human or divine. Others, again, viewing these ideas as the offspring of nature, have assigned them either to the operation of a *special sense*, given for this specific purpose, as the eye for vision; or to the joint action of certain associated emotions; while others regard them as originating in an exercise of *judgment*, and others still, as *natural intuitions* of the mind, or reason exercised on subjects of a moral nature.

Main Question. — The main question is, are these ideas *natural*, or *artificial and acquired?* If the latter, are they the result of education, or of legal restraint? If the former, are they to be referred to the *sensibilities*, as the result of a special sense or of association, or to the *intellect*, as the result of the faculty of judgment or as intuitions of reason?

1. *Education.* — Come they from *Education and Imitation?* — So Locke, Paley, and others, have supposed. Locke was led to take this view, by tracing, as he did, all simple ideas, except those of our own mental operations, to sensation, as their source. This allows, of course, no place for the ideas of right and wrong, which, accordingly, he concluded, cannot be natural ideas, but must be the result of education.

Objection to this View. — Now it is to be conceded that education and fashion are powerful instruments in the cul

ture of the mind. Their influence is not to be overlooked in estimating the causes that shape and direct the opinions of men, and the tendencies of an age. But they do not account for the *origin* of any thing. This has been ably and clearly shown by Dugald Stewart, in answer to Locke; and it is a sufficient answer. Education and imitation both *presuppose* the existence of moral ideas and distinctions; the very things to be accounted for. How came they who first taught these distinctions, and they who first set the example of making such distinctions, to be themselves in possession of these ideas? Whence did *they* derive them? Who taught *them*, and set *them* the example? This is a question not answered by the theory now under consideration. It gives us, therefore, and can give us, no account of the origin of the ideas in question.

2. *Legal Enactment.* — Do we then derive these ideas from *legal restriction and enactment?* So teach some able writers. Laws are made, human and divine, requiring us to do thus and thus, and forbidding such and such things, and hence we get our ideas originally of right and wrong.

Presupposes Right. — If this be so, then, previous to all law, there could have been no such ideas, of course. But does not law *presuppose* the idea of right and wrong? Is it not built on that idea as its basis? How, then, can it originate that on which itself depends, and which it presupposes? The first law ever promulgated must have been either a just or an unjust law, or else of no moral character. If the latter, how could a law which was neither just nor unjust, have suggested to the subjects of it any such ideas? If the former, then these qualities, and the ideas of them, must have existed *prior* to the law itself; and whoever made the law and conferred on it its character, must have had already, in his own mind, the idea of the right and its opposite. It is evident that we cannot, in this way, account

for the *origin* of the ideas in question. We are no nearer the solution of the problem than before.

In opposition to the views now considered, we must regard the ideas in question, as, directly or indirectly, the work of nature, and the result of our constitution. The question still remains, however, in which of the several ways indicated, does this result take place?

2. *Special Sense.* — Shall we attribute these ideas to a *special sense?* This is the view taken by Hutcheson and his followers. Ascribing, with Locke, all our simple ideas to sensation, but not content with Locke's theory of moral distinctions as the result of education, he sought to account for them by enlarging the sphere of sensation, and introducing a new sense, whose specific office is to take cognizance of such distinctions. The tendency of this theory is evident. While it derives the idea of right and its opposite from our natural constitution, and is, so far, preferable to either of the preceding theories, still, in assigning them a place among the sensibilities, it seems to make morality a mere *sentiment*, a matter of feeling merely, an impression made on our sentient nature — a mere subjective affair — as color and taste are impressions made on our organs of sense, and not properly qualities of bodies. As these affections of the sense do not exist independently, but only relatively to us, so moral distinctions, according to this view, are merely subjective affections of our minds, and not independent realities.

Hume and the Sophists. — Hume accedes to this general view, and carries it out to its legitimate results, making morality a mere relation between our nature and certain objects, and not an independent quality of actions. Virtue and vice, like color and taste, the bright and the dull, the sweet and the bitter, lie merely in our sensations.

These skeptical views had been advanced long previously by the Sophists, who taught that man is the measure of all things, that things are only what they seem to us.

Ambiguity of the term Sense. — It is true, as Stewart has

observed, that these views do not necessarily result from Hutcheson's theory, nor were they, probably, held by him; but such is the natural tendency of his doctrine. The term *sense*, as employed by him, is, in itself, ambiguous, and may be used to denote a *mental perception;* but when we speak of *a* sense, we are understood to refer to that part of our constitution which, when affected from without, gives us certain sensations. Thus the sense of hearing, the sense of vision, the sense of taste, of smell, etc. It is in this way that Hutcheson seems to have employed the term, and his illustrations all point in this direction. He was unfortunate, to say the least, in his use of terms, and in his illustrations; unfortunate, also, in having such a disciple as Hume, to push his theory to its legitimate results.

If, by a special sense, he meant only a direct perceptive power of the mind, then, doubtless, Hutcheson is right in recognizing such a faculty, and attributing to it the ideas under consideration. But that is not the proper meaning of the word *sense*, nor is that the signification attached to it by his followers.

No Evidence of such a Faculty. — But if he means, by sense, what the word itself would indicate, some adaptation of the sensibilities to receive impressions from things without, analogous to that by which we are affected through the organs of sense, then, in the first place, it is not true that we have any such special faculty. There is no evidence of it; nay, facts contradict it. There is no such *uniformity* of moral impression or sensation as ought to manifest itself on this supposition. Men's eyes and ears are much alike, in their activity, the world over. That which is white, or red, to one, is not black to another, or green to a third; that which is sweet to one, is not sour, or bitter, to another. At least, if such variations occur, they are the result only of some unnatural and unusual condition of the organs. But it is otherwise with the operation of the so-called special sense. While all men have probably, some idea of right

and wrong, there is the greatest possible variety in its application to particular instances of conduct. What one approves as a virtue, another condemns as a crime.

No Need of it. — Nor, secondly, have we any need to call in the aid of a special sense to give us ideas of this kind. It is not true, as Locke and Hutcheson believed, that all our ideas, except those of our own mental operations, or consciousness, are derived ultimately from sensation. We have ideas of the true and the beautiful, ideas of cause and effect, of geometrical and arithmetical relations, and various other ideas, which it would be difficult to trace to the senses as their source; and which, equally with the ideas of right and wrong, would require, in that case, a special sense for their production.

4. *Association.* — Shall we, then, adopt the view of that class of ethical writers who account for the origin of these ideas by *the principle of association?* Such men as Hartley, Mill, Mackintosh, and others of that stamp, are not lightly to be set aside in the discussion of such a question. Their view is, that the moral perceptions are the result of certain combined antecedent emotions, such as gratitude, pity, resentment, etc., which relate to the dispositions and actions of voluntary agents, and which very easily and naturally come to be transferred, from the agent himself, to the action in itself considered, or to the disposition which prompted it; forming, when thus transferred and associated, what we call the moral feelings and perceptions. Just as avarice arises from the original desire, not of money, but of the things which money can procure — which desire comes, eventually, to be transferred, from the objects themselves, to the means and instrument of procuring them — and, as sympathy arises from the transfer to others of the feelings which, in like circumstances, agitate our own bosoms, so, in like manner, by the principle of association, the feelings which naturally arise in view of the conduct of others, are transferred from the agent to the act, from the enemy or the

benefactor, to the injury or the benefaction, which acts stand afterward, by themselves, as objects of approval or condemnation. Hence the disposition to approve all benevolent acts, and to condemn the opposite; which disposition, thus formed and transferred, is a part of conscience. So of other elementary emotions.

Makes Conscience a mere Sentiment. — It will be perceived that this theory, which is indebted chiefly to Mackintosh for its completeness, and scientific form, makes conscience wholly a matter of sentiment and feeling; standing in this respect, on the same ground with the theory of a special sense, and liable, in part, to the same objections. Hence the name *sentimental* school, often employed to designate, collectively, the adherents of each of these views. While the theory, now proposed, might seem then to offer a plausible account of the manner in which our moral *sentiments* arise, it does not account for the origin of our *ideas* and *perceptions* of moral rectitude. Now the moral faculty is not a mere sentiment. There is an intellectual perception of one thing as right, and another as wrong; and the question now before us is, Whence comes that perception, and the idea on which it is based? To resolve the whole matter into certain transferred and associated emotions, is to give up the inherent distinction of right and wrong as qualities of actions, and make virtue and vice creations of the sensibility, the play and product of the excited feelings. To admit the perception and idea of the right, and ascribe their origin to antecedent emotion, is, moreover, to reverse the natural order and law of psychological operation, which bases emotion on perception, and not perception on emotion. We do not first admire, love, hate, and then perceive, but the reverse.

Further Objections. — The view now under consideration, while it seems to resolve the moral faculty into mere feeling, thus making morality wholly a relative affair, makes conscience, itself, an acquired, rather than a natural faculty, a

secondary process, a transformation of emotions, rather than itself an original principle. It does it, moreover, the further injustice of deriving its origin from the purely *selfish* principles of our nature. I receive a favor, or an injury; hence I regard, with certain feelings of complacency, or the opposite, the man who has thus treated me. These feelings I come gradually to transfer to, and associate with, the act in itself considered, and this with other acts of the same nature; and so, at last, I come to have a moral faculty, and pronounce one thing right, and another wrong.

At Variance with Facts. — This view is quite inadmissible; at variance with facts, and the well-known laws of the human mind. The moral faculty is one of the earliest to develop itself. It appears in childhood, manifesting itself, not as an acquired and secondary principle, the result of a complicated process of associated and transferred emotion, requiring time for its gradual formation and growth, but rather as an original instinctive principle of nature.

Sympathy. — Adam Smith, in his "Theory of Moral Sentiments," has proposed a view which falls properly under the general theory of association, and may be regarded as a modification of it. He attributes our moral perceptions to the feeling of *sympathy*. To adopt the feelings of another is to approve them. If those feelings are such as would naturally be awakened in us by the same objects, we approve them as morally proper. Sympathy with the gratitude of one who has received a favor, leads us to regard the benefaction as meritorious. Sympathy with the resentment of an injured man, leads us to regard the injurer as worthy of punishment, and so the sense of demerit originates; sympathy with the feelings of others respecting our own conduct gives rise to self-approval and sense of duty. Rules of morality are merely a summary of these sentiments.

This View not sustained by Consciousness. — Whatever credit may be due to this ingenious writer, for calling attention to a principle which had not been sufficiently taken into

account by preceding philosophers, we cannot but regard it as an insufficient explanation of the present case. In the first place, we are not *conscious* of the element of sympathy in the decisions and perceptions of the moral faculty. We look at a given action of right or wrong, and approve of it, or condemn it *on that ground*, because it *is* right or wrong, not because we sympathize with the feelings awakened by the act in the minds of others. If the process now supposed intervened between our knowledge of the act, and our judgment of its morality, we should know it and recognize it as a distinct element.

No imperative Character. — Furthermore, sympathy, like other emotions, has no *imperative* character, and, even if it might be supposed to suggest to the mind some idea of moral distinctions, cannot of itself furnish a foundation for those feelings of *obligation* which accompany and characterize the decisions of the moral faculty.

The Standard of Right. — But more than this, the view now taken makes the standard of right and wrong *variable*, and dependent on the feelings of men. We must know how others think and feel, how the thing affects them, before we can know whether a given act is right or wrong, to be performed or avoided. And then, furthermore, our feelings must agree with theirs; there must be sympathy and harmony of views and feelings, else the result will not follow. If any thing prevents us from knowing what are the feelings of others with respect to a given course of conduct, or if for any reason we fail to sympathize with those feelings, we can have no conscience in the matter. As those feelings vary, so will our moral perceptions vary. We have no fixed standard. There is no place left for right, as such, and absolutely. If no sympathy, then no duty, no right, no morality.

Result of the preceding Inquiries. — We have, as yet, found no satisfactory explanation of the origin of our moral ideas and perceptions. They seem not to be the result of

education and imitation, nor yet of legal enactment. They seem to be natural, rather than artificial and acquired. Yet we cannot trace them to the action of the sensitive part of our nature. They are not the product of a special sense, nor yet of the combined and associated action of certain natural emotions, much less of any one emotion, as sympathy. And yet they are a part of our nature. Place man where you will, surround him with what influences you will, you still find in him, to some extent at least, indications of a moral nature; a nature modified, indeed, by circumstances, but never wholly obliterated. Evidently we must refer the ideas in question, then, to the intellectual, since they do not belong to the sensitive part of our nature.

5. *Judgment.* — Are they then the product and operation of the faculty of judgment? But the judgment does not *originate* ideas. It compares, distributes, estimates, decides to what class and category a thing belongs, but creates nothing. I have in mind the idea of a triangle, a circle, etc. So soon as certain figures are presented to the eye, I refer them at once, by an act of judgment, to the class to which they belong. I affirm that to be a triangle, this, a circle, etc.; the judgment does this. But judgment does not furnish my mind with the primary idea of a circle, etc. It deals with this idea already in the mind. So in our judgment of the beauty and deformity of objects. The perception that a landscape or painting is beautiful, is, in one sense, an act of judgment; but it is an act which presupposes the idea of the beautiful already in the mind that so judges. So also of moral distinctions. Whence comes the *idea* of right and wrong which lies at the foundation of every particular judgment as to the moral character of actions? This is the question before us, still unanswered; and to this there remains but one reply.

6. *These Ideas intuitive.* — The ideas in question are *intuitive;* suggestions or perceptions of *reason.* The view now proposed may be thus stated: It is the office of reason

to discern the right and the wrong, as well as the true and the false, the beautiful and the reverse. Regarded subjectively, as conceptions of the human mind, right and wrong, as well as beauty and its opposite, truth and its opposite, are simple ideas, incapable of analysis or definition; *intuitions of reason.* Regarded as objective, right and wrong are realities, qualities absolute, and inherent in the nature of things, not fictitious, not the play of human fancy or human feeling, not relative merely to the human mind, but independent, essential, universal, absolute. As such, reason recognizes their existence. Judgment decides that such and such actions do possess the one or the other of these qualities; are right or wrong actions. There follows the sense of obligation to do or not to do, and the consciousness of merit or demerit as we comply, or fail to comply, with the same. In view of these perceptions emotions arise, but only as based upon them. The emotions do not, as the sentimental school affirm, originate the idea, the perception; but the idea, the perception, gives rise to the emotion. We are so constituted as to feel certain emotions in view of the moral quality of actions, but the idea and perception of that moral quality must *precede*, and it is the office of reason to produce this.

First Truths. — There are certain simple ideas which must be regarded as first truths, or first principles, of the human understanding, essential to its operations, ideas universal, absolute, necessary. Such are the ideas of personal existence, and identity, of time and space, as conditions of material existence; of number, cause, and mathematical relation. Into this class fall the ideas of the true, the beautiful, the right, and their opposites. The fundamental maxims of reasoning and morals find here their place.

How awakened. — These are, in a sense, intuitive perceptions; not strictly innate, yet connate; the foundation for them being laid in our nature and constitution. So soon as the mind reaches a certain stage of development they pre-

sent themselves. Circumstances may promote or retard their appearance. They depend on opportunity to furnish the occasion of their springing up, yet they are, nevertheless, the natural, spontaneous development of the human soul, as really a part of our nature as are any of our instinctive impulses, or our mental attributes. They are a part of that native intelligence with which we are endowed by the author of our being. These intuitions of ours, are not themselves the foundation of right and wrong; they do not make one thing right and another wrong; but they are simply the reason why we so regard them. Such we believe to be the true account of the origin of our moral perceptions.

§ II. — Cognizance of the Right.

The Cognition distinguished from the Idea of Right. — Having, in the preceding section, discussed the *idea* of the right, in itself considered, as a conception of the mind, we proceed now to consider *the action of the mind as cognizant of right.* The theme is one of no little difficulty, but, at the same time, of highest importance.

Existence of this Power. — After what has been already said, it is hardly necessary to raise the preliminary inquiry, as to the *existence* of a moral faculty in man. That we do possess the power of making moral distinctions, that we do discriminate between the right and the wrong in human conduct, is an obvious fact in the history and psychology of the race. Consciousness, observation, the form of language, the literature of the world, the usages of society, all attest and confirm this truth. We are conscious of the operation of this principle in ourselves, whenever we contemplate our own conduct, or that of others. We find ourselves, involuntarily, and as by instinct, pronouncing this act to be right that, wrong. We recognize the obligation to do, or to have done, otherwise. We approve, or condemn. We are sus-

tained by the calm sense of that self-approval, or cast down by the fearful strength and bitterness of that remorse. And what we find in ourselves, we observe, also, in others. In like circumstances, they recognize the same distinctions, and exhibit the same emotions. At the story or the sight of some flagrant injustice and wrong, the child and the savage are not less indignant than the philosopher. Nor is this a matter peculiar to one age or people. The languages and the literature of the world indicate, that, at all times, and among all nations, the distinction between right and wrong has been recognized and felt. The *τὸ δίκαιον* and *το καλόν* of the Greeks, the *honestum* and the *pulchrum* of the Latins, are specimens of a class of words, to be found in all languages, the proper use and significance of which is to express the distinctions in question.

Since, then, we do unquestionably recognize moral distinctions, it is clear that we have a moral faculty.

Questions which present themselves. — Without further consideration of this point, we pass at once to the investigation of the subject itself. Our inquiries relate principally to the *nature* and *authority* of this faculty. On these points, it is hardly necessary to say, great difference of opinion has existed among philosophers and theologians, and grave questions have arisen. What *is* this faculty as exercised; a judgment, a process of reasoning, or an emotion? Does it belong to the rational or sensitive part of our nature: to the domain of intellect, or of feeling, or both? What is the value and correctness of our moral perceptions, and especially of that verdict of *approbation* or *censure*, which we pass upon ourselves and others, according as the conduct conforms to, or violates, recognized obligation? Such are some of the questions which have arisen respecting the nature and authority of conscience.

I. *The Nature of Conscience.* — What is it? A matter of *intellect*, or of *feeling*; a *judgment*, or an *emotion*?

A careful analysis of the phenomena of conscience, with a

view to determine the several elements, or mental processes, that constitute its operation, may aid us in the solution of this question.

Analysis of an Act of Conscience.

Cognition of Right. — Whenever the conduct of intelligent and rational beings is made the subject of contemplation, whether the act thus contemplated be our own or another's, and whether it be an act already performed, or only proposed, we are cognizant of certain ideas awakened in the mind, and of certain impressions made upon it. First of all, the act contemplated strikes us as *right* or *wrong*. This involves a double element, an *idea*, and a *perception* or *judgment*. The *idea* of right and its opposite are, in the mind, simple ideas, and, therefore, indefinable. In the act contemplated, we *recognize* the one or the other of these simple elements, and pronounce it, accordingly, a right or wrong act. This is simply a *judgment*, a perception, an exercise of the understanding.

Of Obligation. — No sooner is this idea, this cognition, of the rightness or wrongness of the given act, fairly entertained by the mind, than another idea, another cognition, presents itself, given along with the former, and inseparable from it, viz., that of *obligation* to do, or not to do, the given act: the *ought*, and the *ought not* — also simple ideas, and indefinable. This applies equally to the future and to the past, to ourselves and to others: I ought to do this thing. I ought to *have done* it yesterday. He ought, or ought not to do, or to have done it. This, like the former, is an intellectual act, a perception or cognition of a truth, of a reality for which we have the same voucher as for any other reality or apprehended fact, viz., the reliability of our mental faculties in general, and the correctness of their operation in the special instance. It is a conviction of the mind inseparable from the perception of right. Given, a clear perception of the one, and we cannot escape the other.

Of Merit and Demerit. — There follows a third element, ogically distinct, but chronologically inseparable, from the preceding: the cognition of merit or demerit in connection with the deed, of good or ill desert, and the consequent approval or disapproval of the deed and the doer. No sooner do we perceive an action to be right or wrong, and to involve, therefore, an obligation on the part of the doer, than there arises, also, in the mind, the idea of merit or demerit, in connection with the doing; we regard the agent as deserving of praise or blame, and in our own minds do approve or condemn him and his course, accordingly. This approval of ourselves and others, according to the apprehended desert of the act and the actor, constitutes a process of trial, an inner tribunal, at whose bar are constantly arraigned the deeds of men, and whose verdict it is no easy matter to set aside. This mental approval may be regarded by some as a matter of feeling, rather than an intellectual act. We speak of *feelings* of approval and of condemnation. To approve and condemn, however, are, properly, acts of the judgment. The feelings consequent upon such approval or disapproval are usually of such a nature, and of such strength, as to attract the principal attention of the mind to themselves, and, hence, we naturally come to think and speak of the whole process as a matter of feeling. Strictly viewed, it is an intellectual perception, an exercise of judgment, giving sentence that the contemplated act is, or is not, meritorious, and awarding praise or blame accordingly.

This completes the process. I can discover nothing in the operation of my mind, in view of moral action, which does not resolve itself into some one of these elements.

These Elements intellectual. — Viewed in themselves, these are, strictly, intellectual operations; the recognition of the right, the recognition of obligation, the perception of good or ill desert, are all, properly, acts of the intellect. Each of these cognitive acts, however, *involves a corresponding action of the sensibilities.* The perception of the

right awakens, in the pure and virtuous mind, feelings of pleasure, admiration, love. The idea of obligation becomes, in its turn, through the awakened sensibilities, an impulse and motive to action. The recognition of good or ill desert awakens feelings of esteem and complacency, or the reverse; fills the soul with sweet peace, or stings it with sharp remorse. All these things must be recognized and included by the psychologist among the phenomena of conscience These emotions, however, are based on, and grow out of, the intellectual acts already named, and are to be viewed as an incidental and subordinate, though by no means unimportant, part of the whole process. When we speak of conscience, or the moral faculty, we speak of a *power*, a faculty and not *merely* a feeling or susceptibility of being affected. It is a cognitive power, having to do with realities, recognizing real distinctions, and not merely a passive play of the sensibilities. It is simply the mind's power of recognizing a certain class of truths and relations. As such, we claim for it a place among the strictly cognitive powers of the mind, among the faculties that have to do with the perception of truth and reality.

Importance of this Position. — This is a point of some importance. If, with certain writers, we make the moral faculty a matter of mere feeling, overlooking the intellectual perceptions on which this feeling is based, we overlook and leave out of the account, the chief elements of the process. The moral faculty is no longer a cognitive power, no longer, in truth, a faculty. The distinctions which it seems to recognize are merely *subjective;* impressions, feelings, to which there may, or may not, be a corresponding reality. We have at least no evidence of any such reality. Such a view subtracts the very foundation of morals. Our feelings vary; but right and wrong do not vary with our feelings. They are objective realities, and not subjective phenomena. As such, the mind, by virtue of the natural powers with which it is endowed by the Creator, recognizes them

The power by which it gives this, we call the *moral faculty;* just as we call its power to take cognizance of another class of truths and relations, viz., the beautiful, its *æsthetic* faculty. In view of these truths and relations, as thus perceived, certain feelings are, in either case, awakened, and these emotions may, with propriety, be regarded as pertaining to, and a part of, the phenomena of conscience, and of taste; the full discussion of either of these faculties will include the action of the sensibilities; but in neither case will a true psychology resolve the faculty into the feeling. The mathematician experiences a certain feeling of delight in perceiving the relation of lines and angles, but the power of perceiving that relation, the faculty by which the mind takes cognizance of such truth, is not to be resolved into the feeling that results from it.

Result of Analysis. — As the result of our analysis, we obtain the following elements as involved in, and constituting, an operation of the moral faculty:

(1.) The mental perception that a given act is right or wrong.

(2.) The perception of obligation with respect to the same, as right or wrong.

(3.) The perception of merit or demerit, and the consequent approbation or censure of the agent, as doing the right or the wrong thus perceived.

(4.) Accompanying these intellectual perceptions, and based upon them, certain corresponding emotions, varying in intensity according to the clearness of the mental perceptions, and the purity of the moral nature.

II. *Authority of Conscience.* — Thus far we have considered the *nature* of conscience. The question arises now as to its *authority* — the reliableness of its decisions.

If conscience correctly discerns the right and the wrong, and the consequent obligation, it will be likely to judge correctly as to the deserts of the doer. If it mistake these points, it may approve what is not worthy of approval, and condemn what is good.

What Evidence of Correctness. — How are we to know then, whether conscience judges right? What vouche have we for its correctness? How far is it to be trustec in its perceptions and decisions? Perhaps we are so constituted, it may be said, as invariably to judge that to b right which is wrong, and the reverse, and so to approve where we should condemn. True, we reply, this may be so. It may be that I am so constituted, that two and two shall *seem* to be four, when in reality they are five; and that the three angles of a triangle shall *seem* to be equal to two right angles, when in reality they are equal to three. This may be so. Still it is a presumption in favor of the correctness of all our natural perceptions, that they are the operation of original principles of our constitution. It is not probable, to say the least, that we are so constitute the great Author of our being, as to be habitually dece It may be that the organs of vision and hearing are lutely false; that the things which we see, and hear, and through the medium of the senses, have no correspond to our supposed perceptions. But this is not a probable s position. He who denies the validity of the natural fac ties, has the burden of proof; and proof is of course imp sible; for the simple reason, that, in order to prove them false, you must make use of these very faculties; and their testimony is not reliable in the one case, certainly it is not in the other. We must then take their veracity fo granted; and we have the right to do so. And so of our moral nature. It comes from the Author of our being, and if it is uniformly and originally wrong, then he is wrong. It is an error, which, in the nature of the case, can never b detected or corrected. We cannot get beyond our constitution, back of our natural endowments, to judge, *à priori*, and from an external position, whether they are correct or not. Right and wrong are not, indeed, the creations of the divine will; but the faculties by which we perceive and ap

prove the right, and condemn the wrong, are from him; and we must presume upon their general correctness.

Not infallible. — It does not follow from this, however, nor do we affirm, that conscience is infallible, that she never errs. It does not follow that our moral perceptions and judgments are invariably correct, because they spring from our native constitution. This is not so. There is not one of the faculties of the human mind that is not liable to err. Not one of its activities is infallible. The reasoning power sometimes errs; the judgment errs; the memory errs. The moral faculty is on the same footing, in this respect, with any and all other faculties.

Its Value not thus destroyed. — But of what use, it will be said, is a moral faculty, on which, after all, we cannot ob[illegible]? Of what use, we reply, is *any* mental faculty, that in[illegible]t absolutely and universally correct? Of what use is a [illegible]ory or a judgment, that sometimes errs? We do not [illegible]lly distrust these faculties, or cast them aside as worth[illegible]. A time-keeper may be of great value, though not ab[illegible]lutely perfect. Its authorship and original construction [illegible]y be a strong presumption in favor of its general correct[illegible]ess; nevertheless its hands may have been accidentally set to the wrong hour of the day.

Actual Occurrence of such Cases. — This is a spectacle that not unfrequently presents itself in the moral world — a man with his conscience pointing to the wrong hour; a strictly conscientious man, fully and firmly persuaded that he is right, yet by no means agreeing with the general convictions of mankind; an hour or two before, or, it may be, as much behind the age. Such men are the hardest of all mortals to be set right, for the simple reason, that they are conscientious. "Here is my watch; it points to such an hour; and my watch is from the very best maker. I cannot be mistaken." And yet he is mistaken, and egregiously so. The truth is, conscience is no more infallible than any other mental faculty. It is simply, as we have seen, a power of

perceiving and judging, and its operations, like all other perceptions and judgments, are liable to error.

Diversity of Moral Judgment. — And this which we have just said, goes far to account for the great diversity that has long been known to exist in the moral judgments and opinions of men. It has often been urged, and with great force, against the supposed existence of a moral faculty in man, as a part of his original nature, that men think and act so differently with respect to these matters. Nature, it is said, ought to act uniformly; thus eyes and ears do not give essentially conflicting testimony, at different times, and in different countries, with respect to the same objects. Certain colors are universally pleasing, and certain sounds disagreeable. But not so, it is said, with respect to the moral judgments of men. What one approves, another condemns. If these distinctions are universal, absolute, essential; and if the power of perceiving them is inherent in our nature, men ought to agree in their perception of them. Yet you will find nothing approved by one age and people, which is not condemned by some other; nay, the very crimes of one age and nation, are the religious acts of another. If the perception of right and wrong is intuitive, how happens this diversity?

This Diversity accounted for. — To which I reply, the thing has been already accounted for. Our ideas of right and wrong, it was stated, in discussing their origin, depend on circumstances for their time and degree of development. They are not irrespective of opportunity. Education, habits, laws, customs, while they do not originate, still have much to do with the development and modification of these ideas. They may be by these influences aided or retarded in their growth, or even quite misdirected, just as a tree may, by unfavorable influences, be hindered and thwarted in its growth, be made to turn and twist, and put forth abnormal and monstrous developments. Yet nature works there, nevertheless, and in spite of all such obstacles, and unfavor

able circumstances, seeks to put forth, according to her laws, her perfect and finished work. All that we contend is, that nature, under favorable circumstances, develops in the human mind, the idea of moral distinctions, while, at the same time, *men may differ much in their estimate of what is right, and what is wrong*, according to the circumstances and influences surrounding them. To apply the distinction of right and wrong to particular cases, and decide as to the morality of given actions, is an office of judgment, and the judgment may err in this, as in any other of its operations. It may be biassed by unfavorable influences, by wrong education, wrong habits, and the like.

Analogy of other Faculties. — The same is true, substantially, of all other natural faculties and their operations. They depend on circumstances for the degree of their development, and the mode of their action. Hence they are liable to great diversity and frequent error. Perception misleads us as to sensible objects, not seldom; even in their mathematical reasonings, men do not always agree. There is the greatest possible diversity among men, as to the retentiveness of the memory, and as to the extent and power of the reasoning faculties. The savage that thinks it no wrong to scalp his enemy, or even to roast and eat him, is utterly unable to count twenty upon his fingers; while the philosopher, who recognizes the duty of loving his neighbor as himself, calculates, with precision, the motions of the heavenly bodies, and predicts their place in the heaven, for ages to come. Shall we conclude, because of this diversity, that these several faculties are not parts of our nature?

General Uniformity. — We are by no means disposed to admit, however, that the diversity in men's moral judgments is so great, as might, at first, appear. There is, on the contrary, a general uniformity. As to the great essential principles of morals, men, after all, do judge much alike, in different ages and different countries. In details, they differ

in general principles, they agree. In the application of the rules of morality to particular actions, they differ widely, according to circumstances; in the recognition of the right and the wrong, as distinctive principles, and of obligation to do the right as known, and avoid the wrong as known, in this they agree. It must be remembered, moreover, that men do not always act according to their own ideas of right. From the general neglect of virtue, in any age or community, and the prevalence of great and revolting crimes, we cannot safely infer the absence, or even the perversion, of the moral faculty.

Precisely in what the Diversity consists. — It is important to bear in mind, throughout this discussion, the distinction between the *idea* of right, in itself considered, and the *perception* of a given act as right; the one a simple conception, the other an act of judgment; the one an idea derived from the very constitution of the mind, connate, if not innate, the other an application of that idea, by the understanding, to particular instances of conduct. The former, the *idea* of moral distinctions, may be universal, necessary, absolute, unerring; the latter, the *application* of the idea to particular instances, and the decision that such and such acts are, or are not, right, may be altogether an incorrect and mistaken judgment. Now it is precisely at this point that the diversity in the moral judgments of mankind makes its appearance. In recognizing the distinction of right and wrong, they agree; in the application of the same to particular instances in deciding *what* is right and *what* is wrong — a simple act of the judgment, an exercise of the understanding, as we have seen — in this it is that they differ. And the difference is no greater, and no more inexplicable, with respect to this, than in any other class of judgments.

Conscience not always a safe Guide. — I have admitted that conscience is not infallible. Is it, then, a safe guide? Are we, in all cases to follow its decisions? Since liable to

err, it cannot be, in itself, I reply, in all cases, a safe guide. We cannot conclude, with certainty, that a given course is right, simply because conscience approves it. This does not, of necessity, follow. The decision that a given act is right, or not, is simply a matter of judgment; and the judgment may, or may not, be correct. That depends on circumstances, on education partly, on the light we have, be it more or less. Conscientious men are not always in the right. We may do wrong conscientiously. Saul of Tarsus was a conscientious persecutor, and verily thought he was doing God service. No doubt, many of the most intolerant and relentless bigots have been equally conscientious, and equally mistaken. Such men are all the more dangerous, because doing what they believe to be right.

It is, nevertheless, to be followed. — What, then, are we to do? Shall we follow a guide thus liable to err? Yes, I reply, follow conscience; but see that it be a right and well-informed conscience, forming its judgments, not from impulse, passion, prejudice, the bias of habit, or of unreflecting custom, but from the clearest light of reason, and especially of the divine word. We are responsible for the judgments we form in morals, as much as for any class of our judgments; responsible, in other words, for the sort of conscience we have. Saul's mistake lay, not in acting according to his conscientious convictions of duty, but in not having a more enlightened conscience. He should have formed a more careful judgment; have inquired more diligently after the right way. To say, however, that a man ought not to do what conscience approves, is to say that he ought not to do what he sincerely believes to be right. This would be a very strange rule in morals.

Conscience not exclusively intellectual. — I have discussed, as I proposed, the *nature* and *authority* of conscience. In this discussion I have treated of the moral faculty as an intellectual, rather than an emotional power. I would not be understood, however, as implying that con

science has not also an emotional character. Every intellectual act, and faculty of action, partakes more or less of this character, is accompanied by feeling, and these feelings are in some degree peculiar, it may be, to the particular faculty or act of mind to which they relate. The exercise of imagination involves some degree of feeling, either pleasurable or painful, and that often in a high degree; so also the æsthetic faculty. It is peculiarly so with the exercise of the moral faculty. As already stated, in our analysis of an act of conscience, it is impossible to view our past conduct as right or wrong, and to approve or condemn ourselves accordingly, without emotion; and these emotions will vary in intensity, according to the clearness and force of our intellectual conception of the merit or demerit of our conduct.

These feelings constitute an important part of the phenomena of moral action, and consequently of psychology; as they belong, however, to the department of *sensibility*, rather than of *intellect*, their further discussion is not here in place. They will be considered in connection with other emotions in the subsequent division of the work.

INTELLECTUAL FACULTIES

SUPPLEMENTARY TOPICS.

Definition. — I understand, by instinct, a law of action, governing and directing the movement of sentient beings — distinct, on the one hand, from the mere blind forces of matter, as attraction, etc., and from reason on the other; a law working to a given end by impulse, yet blindly — the subject not knowing why he thus works; a law innate, inherent in the constitution of the animal, not acquired but transmitted, the origin of which is to be found in the intelligent author of the universe. These I take to be the principal characteristics of that which we term instinct.

Instinct a Law. — It is a *law of action.* In obedience to it the bee constructs her comb, and the ant her chambers, and the bird her nest; and in obedience to it, the animal, of whatever species, seeks that particular kind of food which is intended and provided for it. These are merely instances of the operation of that law. The uniformity and universality which characterize the operations of this principle, show it to be a law of action, and not a merely casual occurrence.

Works by Impulse. — It is a law *working by impulse*, not mechanical or automatic, on the one hand, nor yet rational on the other. The impelling or motive force, in the case supposed, is not that of a weight acting upon machinery, or any like mechanical principle, nor yet the reflex action of a nerve when irritated, or the spasmodic action of a muscle. It is not analogous to the influence of gravitation on the purely passive forms of matter. Nor yet is it that higher principle which we term reason in man. The bird constructs her nest as she does, and the bee her cell, in obedience to some blind yet powerful and unfailing *impulse* of her nature, guiding and directing her movements, prompting to action, and to this specific form of action, with a restless yearning, unsatisfied until the end is accomplished. Yet the creature does not herself understand the law by which she works. The bee does not know that she constructs her comb at that precise angle which will afford the greatest content in the

least space, does not know why she constructs it at that precise angle, could give no reason for her procedure, even were she capable of understanding our question. It is not with her a matter of reflection, nor of reason, at all, but merely of blind, unthinking, yet unerring impulse.

As innate. — This law is *innate*, *inherent* in the constitution of the animal, *not acquired*. It is not the result of education. The bird does not learn to build her nest, nor the bee her comb, nor the ant her subterranean chambers by observing how the parent works and builds. Removed from all opportunities of observation or instruction, the untaught animal still performs its mission, constructs its nest or cell, and does it as perfectly in solitude as among its fellows, as perfectly on the first attempt as ever after. Whatever intelligence there is involved in these labors and constructions, and certainly the very highest intelligence would seem, in many instances, to be concerned in them, is an intelligence transmitted, and not acquired, the origin of which is to be sought, ultimately, not in the creature itself, but in the Author of all intelligence, the Creator of the universe. The intelligence is that not of the creature, but of the Creator.

Manifests itself irrespective of Circumstances. — It is to be further observed, with respect to the principle under consideration, that it often manifests its peculiar tendencies prior to the development of the appropriate organs. The young calf butts with its head before its horns are grown. The instinctive impulse manifests itself, also, under circumstances which render its action no longer needful. The beaver caught and confined in a room, constructs its dam, as aforetime, with whatsoever materials it can command, although, in its present circumstances, such a structure is of no possible use. These facts evidently indicate the presence and action of an impulse working blindly, without reflection, without reason, without intelligence, on the part of the animal.

Indications of Contrivance. — On the other hand, there

are instances of brute action which seem to indicate contrivance and adaptation to circumstances. The bee compelled to construct her comb in an unusual and unsafe position, steadies it by constructing a brace of wax-work between the side that inclines and the nearest wall of the hive. The spider, in like manner, whose web is in danger, runs a line, from the part exposed to the severest strain or pressure, to the nearest point of support, in such a manner as to secure the slender fabric. A bird has been known, in like manner, to support a bough, which proved too frail to sustain the weight of the nest, and of her young, by connecting it, with a thread, to a stronger branch above.

These Facts do not prove Reason. — Facts of this nature, however interesting, and well authenticated, must be regarded rather as exceptions to the ordinary rule, the nearest approach which mere instinct has been known to make toward the dividing line that separates the brute from the human intelligence. They do not, in themselves, prove the existence of reason, of a discriminating and reflecting intelligence, on the part of the animal; for the same law of nature that impels the creature to build its nest or its comb, under ordinary circumstances, in the ordinary manner, may certainly be supposed to be capable of inducing a change of operation to meet a sudden exigency, and one liable at any time to occur. It is certainly not more wonderful, nor so wonderful, that the bee should be induced to brace her comb, or the spider her web, when in danger, as that either should be able to construct her edifice originally, at the precise angle employed. It must be remembered, moreover, that, in the great majority of cases, brute instinct shows no such capacity of adaptation to circumstances.

The Question before us. — We are ready now to inquire how far that which we call instinct in the brute, differs from that which we call intelligence in man. Is it a difference in *kind*, or only in *degree*? A glance at the history of the doctrine may aid us here.

Early Views.- From Aristotle to Descartes, philosophers took the latter view. They ascribed to the brute a degree of reason, such as would be requisite in man, were he to do the same things, and proceeding on this principle, they attributed to animals an intelligence proportioned to the wants of their nature and organization. This principle, it need hardly be said, is an assumption. It is not certain that the same action proceeds from the same principle in man, and in the brute; that whatever indicates and involves intelligence and reason, in the one case, as its source, involves the same in the other. This is a virtual *petitio principii*. It assumes the very point in question. It may be that what man does by virtue of an intelligent, reflecting, rational soul, looking before and after, the brute does by virtue of entirely a different principle, a mere unintelligent impulse of his nature, a blind sensation, prompting him to a given course. This is the question to be settled, the thing to be proved or disproved. And if the view already given of the character of brute instinct, is correct, the position now stated as possible, may be regarded as virtually established.

View of Descartes. — Descartes, perceiving the error of previous philosophers, went to the opposite extreme, and resolved the instinct and action of the brute into mere mechanism, a principle little different from that by which the weight moves the hands of the clock. The brute performs the functions of his nature and organization, just as the puppet moves hither and thither by springs hidden within, of which itself knows nothing. The bird, the bee, the ant, the spider, are so organized, such is the hidden mechanism of their curious nature, that at the proper times, and under the requisite conditions, they shall build, each its own proper structure; and perform, each, its own proper work and office. So doing, each moves automatically, mechanically.

Locke and his Disciples. — Differing, again, from this view, which certainly ascribes too little, as the opposite theory ascribes too much to the brute, Locke, Condillac, and